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Mac and PC emulation for the Amiga.

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EMULANT



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CU AMIGA MAGAZINE • DECEMBER 1995

## This Month's Features

### Programming 26

Our incredibly powerful Amiga 4 never stops is just what you need to get into programming. Writing your own software is one of the most rewarding things you can do with your Amiga but where do you start? In plain English we explain the concepts behind programming, and guide you through all the available languages to help you decide which is best for you. We'll have you writing those killer applications in no time!



### Pedal to the Metal 32



There's a revolution going on in computer game soundtracks. With the advent of CD-ROM as the most popular computer medium, development teams are hiring recording professionals recording artists to provide superior audio tracks. Now there's no limit to the sounds that a computer game can make - even convincing heavy rock tracks are now possible. We venture into the studios of one of the Amiga's more exciting development teams to find out just how they do it.

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Trackball Manager 2 40

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Team (the last Super Pinball) 59



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# DISK 122

## Amiga E 3.1i

FREE 132 PAGE AMIGA E GUIDE

Amiga E



### Key Features

- Very user friendly
- Easy to get to understand
- Compiles quickly
- Runs fast

**Start programming with Amiga E, the complete professional programming language on this month's cover disks.**

**W**hat sets the Amiga apart from the consoles is the fact that you can create your own programs and games, so you are not limited to forking out huge wads of cash for someone else's software. You can be the designer, writer and producer of your very own masterpiece. You already have the programming language, now all you need are some good ideas and a lot of dedication!

### Quick and easy

Amiga E is a superb programming language by Wouter van Oortmarssen, designed specifically for the Amiga. There are a number of other languages available for the Amiga, but E is probably the best for one very good reason: the compiler works extremely quickly! This means you don't have to hang around for ages before you can actually run your programs.

Obviously, this has a dramatic effect on the development cycle of a typical program. But it also makes programming a lot more fun, since you can see the effect of small changes to your program much more quickly. Your creativity is not sapped by having to wait for the compiler!

A lot of people already know the benefits of Amiga E, and some of the more notable ones are Paul Nolan (who wrote the amazing Photogenic in E) and Chad Rowell (author of the icon editor, IconEdit). From

just these two examples it should be clear that Amiga E is a real, professional programming language that is more than capable of producing spectacular software. The only limit is your own abilities!

The Amiga E v3.1i package on this month's cover disk contains a full, registered compiler. Unlike the PD demo version, this is not limited in size of the executable programs it can produce, so you can now enjoy the full power of Amiga E.

### Installation

Amiga E is very easy to use. Once you've unarchived the cover disk onto the three disk disks, all you really need is the main disk, Amiga E v3.1i, and the modules disk, 'EModules'. The third disk contains a lot of example programs which will help you learn the language. Hard-disk installation is very simple and is described below.

Boot your Amiga from the first disk and double-click on the disk icon to open a window with a



▲ See what you always wanted done to your desktop, all courtesy of Amiga E, and by the way... (E)E!





▶ Creating your own Shell icon and file manager icons was simple with Amiga 5.

Shell icon. Double-click on this icon to get a Shell. Make sure the modules disk is write-enabled, since we are going to create a program and write it on the disk. If you've not got a hard disk, but you have two floppy drives then you could put the modules disk in the second drive, where you can leave it. Otherwise you'll need to follow the usual Amiga requests and swap disks a bit.

In the Shell prompt, type:

```
cd Modules:lib
```

Now we can try compiling a simple program. Enter the following in the Shell:

```
cc HelloWorld.c
```

The C compiler, 'cc', will do its bit and produce the program 'HelloWorld' on the disk. To run the program type the following:

```
HelloWorld
```

All it does is print 'Hello World' back at you, but this is just a simple example — we have to start somewhere! If you have Workbench 3.0 or better then you can try the editor which was designed for use with E. It's called 'TE' and can be found in the 'C' directory on the main disk. This great editor by Sam Wilts is another good example of what you can do with E. Read the documentation in 'Tools/TE/Docs' on the main disk for more details.

## Hard disk

It is very easy to set up Amiga 5 to run from hard disk. All you need is the samples, 'cc', on your

path and an assignment of 'E:Modules' to the location of the modules. For example, the following description shows how to install Amiga 5 in a directory 'Amiga5' on the hard disk 'H:1'.

Using Workbench, the Shell or your favourite file manager program, create the directory 'H:1 Amiga5'. For example, using the Shell type:

```
mkdir H:1Amiga5
```

Copy the contents of the Amiga 5 'c:\b' and Amiga 5 'c:\b\examples' disks to this directory. The 'C' directory is usually called 'bin' on a hard disk installation so you might want to rename it.

```
Copy Amiga 5 'c:\b\bin'
disk:amiga5 all rename
disk:amiga5 'c'
disk:amiga5/bin Copy
Amiga 5 'c:\b\bin\examples'
disk:amiga5 all
```

Now create a sub-directory called 'Modules' in 'H:1 Amiga5' and copy the contents of the 'E:Modules' disk there. You might then want to move the 'bin' directory up to 'H:1 Amiga5'.

```
mkdir
disk:amiga5/Modules Copy
Modules:bin
disk:amiga5/Modules all
rename
disk:amiga5/Modules/bin
disk:amiga5
```

Add the following two lines to your 'c:\start-up' or 'c:\start-up.requirements' Assign: Modules:

```
disk:amiga5/Modules Path
disk:amiga5/bin add
```

Now reboot your Amiga for the assignment to take effect and try compiling the simple example.

```
cd H:1Amiga5/bin cc
HelloWorld.c HelloWorld
```

## Learning E

On the cover of this issue is a beginner's guide which should help you learn the fundamental aspects of Amiga 5. The more advanced features are explained in the E Reference Manual, which is the AmigaGuide file 'E-guide' in the 'Docs' directory on the main disk. This was written by the author of Amiga 5, Walter van Dorp, so should be considered authoritative.

The programs in the 'bin' directory on the modules disk and in 'E:\c' on the extras disk are good tutorial examples. Some of these show how to use the various utilities that come in the Amiga 5 package. The 'E:\c\bin' directory on the extras disk contains translations of the examples in the Real Kernel Reference Manual (which is the official guide to programming the Amiga, and is available in four volumes: Libraries, Devices, Includes and Autoboots, and Hardware).

## Here's some I made earlier

The first screenshots on these pages show two of the example programs. The first of these was written by Michael Jacobs and is a made-up of spinning disks at a Workbench background using hardy any CPUs. This is 'tossu' in the directory 'tossuFileEditor\examples' on the extras disk.

The other example (written by Walter) shows how easy it is to create a fast-sensitive, resizable (Graphical User Interface GUI) in E. If you use the 'EasyGUI' module. The example is 'gui' in the 'E:\c\bin\gui' directory. Another 'EasyGUI' example is a fully-working file requester which also shows how to use Amiga system functions to interrogate disks and volumes. This is 'requester' in the 'E:\c\bin\gui' directory. 'ShowMouse' in the 'E:\c\bin' directory is one of these experimental utilities. It displays the basic structure of Amiga library files like executables and libraries, and also incorporates a full disassembler.

If you want to learn things like how to use the Extensible messaging system, how to program using

OOOP2 (the object-oriented system for GUI creation), or how to create a Commodore, then the place to look is the 'E:\c\bin' directory. The examples are, respectively, 'comd' and 'part2' in 'E:\c\bin\comd', 'libraryFont', 'talkToGui' in 'E:\c\bin\comd\comd', and 'hookGui' in 'E:\c\bin\comd'.

## More E sources

If you've got access to Amiga, either by the Internet, the Amiga 5 or a decent PC Hosted then you want to look in the 'World' directory for E-specific stuff. Recently, part two of the 'E' translation has been uploaded as 'E2A4E-2A-2A-2A'. There's also a small GUI called 'ECommodore' to help compile E programs from an Atari-friendly editor like 'ECommodore'. Two huge compilations of modules and programs are 'ECommodore' and 'ECommodore', and if you speak German there's the 'E' series of disks 'E12/E13' through to 'E12/E13'.

For the Internet-connected there's a mailing list run by Norman Katt. To join, send a message with 'HELLO' in the body to 'amiga-request@biffhouse.com'. You'll get a message back telling you how to subscribe.

## Upgrades

The Amiga 5 compiler on this month's cover disk is different from the full, registered version in only one respect: the version cannot be upgraded for free. Upgrade patches are available on Amiga 5 as they are created, but you must register 'cc' before you can use them. Once you have registered, all updates will be free. You can register by sending your money to Jason Hume (Dept E, Normal Systems Ltd, 3 Alfred Street, Oxford OX1 4BA. Price: £25 via disc or £25 via E-Mail).

## Go and play

Amiga 5 gives you the power to make your Amiga do exactly what you want it to. Programming your Amiga is something which can be very rewarding, and if you're particularly good you could even earn some money. But don't let this put you off.

Watch for the tutorials on this excellent package which will be starting from next month. ■



# EMERALD

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Amiga Track 1 CD

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# DISK 121

# Worms



Demo for all  
Amigas  
with 1MB

We've been waiting for this one rather a long time. Now it's here so you can test this excellent game out for yourself.

**T**he best game available this Christmas? Turn to page 40 to find out. Then load up this demo and have a go for yourself. It consists of three landscape scenarios: Snow, Forest and a special C.U. Amiga Magazine level just for you. Each game lasts just five minutes, and although this doesn't sound very much, it will allow you to complete each level.

## Total wormage

You will need to uncompress your demo disk onto two separate blank floppy disks. Do this by entering your machine's working disk 121 and following the on-screen prompts, swapping disks as instructed. For more information on loading your disk turn to page 14.

Once you have your two Worms demo disks, insert Disk one into the internal drive of your Amiga and reboot it. After a couple of seconds an On-Screen logo will appear followed by a beam 13 logo, then it takes about a minute or two to load the demo, depending on which Amiga you have. It's slower on an Am500 than it is on an A1200. If the screen goes blank for a while before the loading screen appears don't worry everything should still be all right.

If you have an A1200 you will be

asked for Disk two half way through the loading sequence. Disk two holds most of the sound samples for the demo, so you're in for a treat. Unfortunately if you have an A500 or A600 then Disk two is pretty much redundant - your machine will not be able to handle all of the samples. Don't worry though, everything else remains the same and there are enough samples to keep you happy.

Upon loading click straight onto the 'play game' option. You will then see a player select screen. The first four teams, 1-up-A, are human options, the last four (with the chip sprite beside them) are computer players. Once you have selected who you want to play with and against, click on the 'next' button then on 'friendly'. This will start the first.

## Oh no ...

The computer teams are rated from useless to good, with Oh No! the worst and WHH the best. It's not a good idea to select more than two teams at a time in this demo, if you want to finish a game that is, because it cuts off after five minutes the more players making moves, the more time is wasted and you'll end up with no result. Thus, two human or one human and one computer player is the ideal trio. You have only 30 seconds to complete your turn once one of your worms has been selected. You will see a little arrow above the currently activated worm. The object of the game is to kill off the other team, so good luck. ■

## It's All A Question of Control

You will need your mouse and keyboard to play worms. Your mouse controls the cursor and if you right click you will see a menu selection which appears at the bottom of the screen. Right clicking a second time will bring up a second menu with more items on it. For a full explanation of all of these items see the review of Worms on page 48. You can select a weapon or object simply by left clicking on the one you desire.

The cursor keys control your worm's movement and the sights you see for aiming (to fire) weapons:

- **Left:** Move your worm left
- **Right:** move your worm right
- **Up:** Move your worm's aiming device up
- **Down:** Move your worm's aiming device down
- **Return:** Your worm jumps in the direction he is facing

• **Spacebar:** hold down the space bar to increase the power bar, release it to stop the power bar and fire the weapon. If you're using a blow torch or drill, hit the power bar to start up and let it spin to stop.

If you are using a flaming missile, an air strike or the teleporter: First select the weapon, then a red cursor will appear on screen. Place the cursor over wherever you want to teleport or bomb and then right click. This will activate both the teleport and the air strike. To launch a flaming missile you have to use the space key to activate the power bar as normal.

## Ready, Aim, Fire ...

Bomb like the grenade are trajectory weapons. You have to aim into the air at an angle and use the power bar to judge the distance the bomb will be lobbed.





# cover disks

## How to load...



## IF YOUR DISK WON'T LOAD

As you go, please remember to ensure that the 20 largest Singapore firms will each be getting targeted. Remember if you do experience problems follow this simple guide. We also appreciate that should our team bring up a flagged issue, should it occur through our activities we cannot assume responsibility for it. However, our communications are neutral and respectful. In the interest of transparency, we will be publishing the results of our engagement.

1. *Do you have any questions?*  
2. *Is there anything you would like to see at this and previous years' events?*  
3. *Do you have any suggestions for making the event and the conference enjoyable to all?* (A 10-15 min session for members of the press and the public is being held at the end of the conference.)  
4. *Do you have any other comments?* (A 10-15 min session for members of the press and the public is being held at the end of the conference.)  
5. *Thank you very much for your participation. It is a pleasure to meet you. Good night!* (The speaker will be available for a 10-15 min session for members of the press and the public.)

100

**Table 6**

[illegible]

1000

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

## Anton E

Your Amiga II cover disk contains compressed archives for three separate Amiga II system disks. Before you can use Amiga II, these archives must be expanded onto three new disks. These disks do not need to be formatted. Follow these steps to expand your disks.

1. Insert the **Ar8** **E** cover disk into the internal floppy drive and insert your **Ar8** disks. Alternatively insert the cover disk after loading your system, double click on the disk icon and then double click the **CUMANS** icon.
2. If you want to check for write errors during disk expansion, click the gadget marked "Don't Verify Expand" so that it reads "Verify Expand". This is not essential and will slow down the expansion process slightly.
3. You can expand your disks to an external floppy disk drive if you have one connected. To change the expand device, click on the "Expand to FDD" gadget.
4. To expand the first of the three disks, click on the disk image marked **Ar8** if v3.0.1 or press **F1**.
5. You will be prompted to insert a blank disk once the action has been loaded. Do so and press **Return** to continue.
6. You will be asked to insert disk **CU 121**. Do not insert the **Windows** disk, but instead insert the **Ar8** **E** cover disk, which has randomly been named **CU 121** rather than **CU 122**.
7. Repeat steps 4, 5 and 6, clicking on the remaining two disk images, to load and inserting another two blank disks accordingly.
8. You will now have your three **Ar8** **E** system disks. Label them according to their names on the expansion menu screen.
9. Read from your manual **WordSearch** system. Refer to page 10 for general operating instructions and hard drive installation.

**Abstract**

Warren needs to be decompressed onto two separate disks before you can play the game. These do not need to be formatted, but any information contained on them will be overwritten. While protect your cover disk, insert it into the internal drive and reset the Amiga. Now follow the on-screen prompts, swapping disks as required. When it's all finished, boot your Amiga using the first of the separated Warren disks. ■





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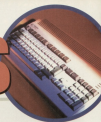








# News



## Silica In Receivership



**L**ong time Amiga seller and wholesaler and owners of the Amiga brand of peripherals, Silica, have gone into administrative receivership. The company, which has been with the Amiga right from the beginning

announced the news in mid October, but hopes that the process is temporary. Although the receiver was unavailable for comment, Amiga Technologies remained confident that it was a minor setback for the distributor and that they would be back on the rails after Christmas.

Just four months ago the Amiga's other old distributor ZCL went into liquidation, blaming their misfortune on Commodore's bad Silica have done no such thing. An industry insider claimed that "they are just seeking protection from their creditors until cash flow improves. The summer months have been bad." According to Amiga Technologies the A/CPU will continue to be distributed by Silica and anyone with machines on order through them should not worry; the receiver intends to honour all orders. The other Amiga distributors, Commodore, remain unaffected and should be able to pick up any shortfall the Silica situation brings about.

## Christmas 4000 Accelerator

**T**he A4000/40 50MHz double-integer accelerator, known as the Cosmos 4000, has just had a significant price reduction for Christmas. Bitronics have told us. Previously priced at £299.95, it has been reduced to £289.95. Originally rated in TWE in the October issue of CU Amiga Magazine, swarmed up with the comment "Reasonable speed boost in perhaps too high a price", this price reduction goes some way to rectifying one of the major criticisms of the accelerator, and should add a few percentage points to this score accordingly. With a SysInfo 1875 rating of 37.73 and good benchmark results, it looks a very attractive option, so long as the 'overclocking' doesn't lead to heat problems. Also reduced for Christmas is the Image Vision multimedia authoring package. Originally £149.95, Bitronics are reducing this powerful package to £139.95 up until the new year. Look for a review in a forthcoming issue of CU Amiga Magazine.

## Breathless



Possibly someone said that former mapped Doom clones 'couldn't be done' on an Amiga. Ever since that time the FPS demo world has been inundated with examples of fluidly texture-mapped graphics engines to bring new depths of realism. Technically the Amiga's custom chips can (and suit) to this

type of graphics but with the advent of the immensely popular Gloom and ADOX, these techniques have improved to a level that was previously thought impossible. Rumours have circulated about a new game under

development by an Italian group known as Fields of Vision. Some of the highlights are the amazingly good texture mapped artwork coupled with an engine that has variable screen sizes, resolution and detail too to other. More impressive is the light bouncing and complex texture mapped enemies, which even move around smoothly on only moderately accelerated Amigas. If the game has any of the actual gameplay of Gloom and ADOX it will be an essential purchase.

## TWI and WIE Merger

Time Warner Interactive Entertainment, who are due to release *Prince of Persia* on Amiga around Christmas time and Warner Interactive Entertainment, who now own Renegade and have the rights to *ViewCap*, *Demolish World Of Warcraft* and this month's *Flight Of The Amazon Queen* have merged. Both were originally formed out of two separate parts of the gigantic Warner Bros firm, music and film publishing empire.

Although their long term plans for the Amiga are uncertain, the merged company is still believed to be publishing *Chess Engine 2* in the spring. To contact the Warner's phone 0171 581 4380.



# Amiga Production hits 15,000



In the time you read this the production of the Amiga Mega 1200 will have topped 15,000. Over half of which will have gone on sale here in the UK. We visited the factory in France where it is being made during October and witnessed two production lines running the Amiga alongside PCs and other computer related kit. Don't worry though, you're not likely to get a Pentium chip instead of your Amiga.

Microsoft, Selection, the manufacturers, are a multi billion pound company producing components for a wide range of PC, and other sectors, including Amiga. To add to this good news, your favorite magazine has a special value going into each UK Amiga Mega pack. Called the Complete Rickstart Guide to Your Amiga it's been written by journalists from CU Amiga Magazine and is the most comprehensive, yet easy to use starting point for all new at 200 users.

## Caption Compo

We photographed these towers outside the Selection Amiga factory in France. There are two subscriptions on offer as prizes for the people who can 1. tell us what they are actually are and 2. provide a 10-20 word caption for the picture. Only one sub is available per person, but by all means answer both questions.

Send all entries marked "Twin Towers Competition" to the usual address by December 20th.



## Another Squirrel Surfs In

Perhaps the Amiga's most serious limitation is its serial port. Unchanged since the original 20000, it's barely capable of keeping up with modern day modems and sadly loses there if the CPU is overly taxed. To address this problem, Hitech have announced the 'Surf Squirrel' which is an updated Squared SCSI interface, featuring a faster and more efficient SCSI controller chip and a new high speed serial port, priced at £39. Capable of up to 300,000 bps, it would be suitable for networks as well as modern communications with the Internet. Replies to follow. For more information, call Hitech on 01625-718331.

## Pleasance Music

**F**orner Commodore boss, David Pleasance has set up his own recording studio in partnership with two musicians to produce soundtracks for games, films etc. They will also be recording commercial music, with a band called Pleasance being their first shot at this. The album will be called

Everybody's Girlfriend and is claimed by David to be inspired by the Amiga (Amiga meaning girlfriend in Spanish). The songs are written by David and his partners and the music is being written and compiled using an Amiga 486D with Reti and Pape. For some of the more dirtiest and complicated hits they have been reluctant to using a Mac: though, "There was nobody able to help us with Reti and Pape at the level we are using it in this country, so because of time constraints we are using a Mac. But the Amiga remains central to sequencing and recording." The new company is called Tangerine Design and thus hopes to have their first CD out in time for Christmas. More news next month.



## World Of Amiga Now For Jan

As reported some months ago Amiga Technologies and Peter Bromfield associates organizers of last Christmas' World Of Amiga show are in the process of organizing another one. Although no venue has yet been set and ticket prices have not been announced it now seems clear that it will be going ahead in January, provided new Amiga sales pick up between now and then. If you want to get more information on this contact a show hotline on 01288 700090.



# Investing in AMIGA<sup>(TM)</sup>



We have the AMIGA A1200 Magic Pack in stock at just £399.99, with the 170MB Hard Drive version costing only £100 more at £499.99

The new AMIGA monitor is also in stock at only £299.99

By the time you read this we should have the new A4000T in stock. Call for details.



We have High Density external floppy drives in stock.

These superb new drives work with any Amiga, and unlike other HD floppy drives do NOT change the Amiga's Operating System in any way.  
Recommended at just £89.95

We also have expansion RAM and accelerators in stock. Call for prices.



Interested in Video? We have everything you need, from a Genlock at less than £100 up to VLAB-Motion and beyond.

Call for latest news on the Draco system.

We have CD Rom drives, SCSI adapters, large EIDE drives, large & fast SCSI drives, Syquest drives, graphics cards, Mac Emulators, PC Emulators, internal and external Panasonic PD Drives, SCSI covers...



We have most good CD ROM disks in stock. We have a carefully chosen selection of serious software in stock.

In short, if it's for the AMIGA, and it's good, you can buy it from us.

So come and see us or use our Mail Order Service. Either way, the service is second to none.

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Fax us on (01392) 493 393

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CompuServe: 106072.1536

(We have a lot more planned for the coming months... stay tuned!)

□ Brian  
□ □ Fowler  
□ Computers Ltd

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## Hisoft Announce MPEG Squirrel

**B**ack when Commodore were churning out the C622 in droves, Supers were drooling for the the MPEG card which would allow you to watch Video CDs. However, Commodore went bust and Excess don't appear to have much interest in the C622 so MPEG hasn't been widely available on the Amiga. Now though Hisoft have announced a 'Squirrel MPEG'. Not to be confused with the Squirrel SCSI, this unit is a set-top box with a SCSI camera/interface. Attached to some form of monitor or TV and any machine with its own SCSI interface, full motion video can be decompressed from hard drive or memory in fact a computer isn't needed at all since the unit can be linked directly to a Video CD capable CD-ROM and play MPEG video direct to your TV with the provided remote control.

Of real interest to Amiga users, however, will be the ability to compress rendered animations into MPEG files and then display the results at full speed via the Squirrel MPEG. Hisoft plan to release the Squirrel MPEG before January next year priced between £200 and £300. Call Hisoft on 01925 735781 for more information.

## Charts

These are a couple of surprise re-entries in the charts this month. Whether this has to do with new Amiga owners buying old (but startlingly good) games or not it's difficult to tell but the re-entry on Indy, Monkey Island and Syndicate is good news.

1. Player Manager 2	Virgin
2. Sensi World Of Soccer	Virgin
3. Monkey Island 2	US Gold
4. Beau Jolly Compilation	Beau Jolly
5. Indiana Jones and Fate Of Atlantis	US Gold
6. Formula 1	Domark
7. Ultimate Soccer Manager	Impressions
8. PW3 Multi Edit	Gremlin
9. Sensible Golf	Virgin
10. Syndicate	EA

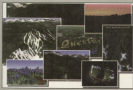
## Disk Drive Network

**T**he Canadian based Amiflex Development have announced a new Amiga networking system called AmigaLink. Bundled with the Envoy 2.2 networking software, AmigaLink doesn't require a zero-based Amiga as it uses the external floppy disk drive port. This method means that AmigaLink can handle a transfer rate of 480,000 bits per second via Direct Memory Access (DMA) which means CPU usage is far lower than parallel solutions. Capable of networking up to 20 machines it is supplied with AmigaLink 2.2 networking software which is capable of running on OS 1.3 machines. Expect a full review soon.

Also from the Amiflex stable is a hard drive interface for the A675 and the CDFV known as 'SCSI TV'. Being a full specification SCSI interface supporting the Rigid Disk Block standard, SCSI direct and auto-booting, SCSI TV should be of keen interest to owners of these machines. Call Amiflex Development on +1-403-525-8458 or E-Mail them on sales@amiflex.com for further information.

## World Construction Set

**B**riterSoft announced UK distribution of the World Construction Set. A package similar to Maxis' in that it creates very realistic rendered landscapes as seen below. Priced at just £19.95 (US \$29.95) the package includes for £1.95. Call BriterSoft on 01938 281466 for more details.



## The Stateside Column: By Jason Compton

At last, we have a virtual Service Management Group, the company that provided warranty service to American Amiga owners during some of the Commodore years, has been chosen by Amiga Technologies as the first direct distributor for new machines in North America. In addition, Software Hut, a large North American mail order house, claims they also have been chosen. As Gilles Bounin, Marketing Director for Amiga Tech informed an impromptu press conference on IRC, SMI's contract was for non-exclusive distribution through the end of 1995.

As this issue goes to print, both SMI and the North American Amiga Technologies office are waiting for the final word on this situation, as both seem to feel that the plans will be more long-term. The only comment on Software Hut's status came from a company representative who categorised the agreement as "verbal." On the heels of this news, others are already being taken for new Amiga 4800 Towers, the only machines that will be available on this continent before Christmas. SMI has been told by Amiga Tech that Amiga 1200s, built for NTSC standards, will be available in January. All new machines will come with the impressive software pack assembled by Amiga Tech UK's Jonathan Anderson.

Despite not having any new machines for nearly two years (even before Commodore's bankruptcy), obtaining machines in North America, particularly the US, was incredibly difficult for six months before April, 1994. Amiga users were armed and cautioned their machines with two user-organised shows, bringing users, dealers, and celebrities together in Houston and Eastern Canada in July and August, respectively. Encouraged by the success of these smaller shows, Wonder Computers Inc., which consists of a dealer chain, distribution unit and software team, is organising the World of Amiga Forum show. The event will be held, as is tradition, at the Toronto International Centre, from December 8-10. Amiga users always seem to find something to celebrate. The fear that North America would be ignored by the head management team to have been played somewhat. The Amiga market is never a boring place. There's always someone who's up to something to make life a little easier, a little more interesting, a little more worth cheering about. Here's to their continued success.



Matt Broughton's



# Games in view

The new Amigas are finally available but are there any games developers still making products for our beloved machine? You betcha!

**A**s I'll need to tell you, one of the most important things to report at the moment is the fact that Amiga 1200s are finally back in the UK after some eighteen months' absence. The only major chain of stores to have supported the Amiga so far is **Tandy**, with 176 of their 347 stores stocking the machine, but we'll just have to wait and see how things go.

Just to prove that it's the quiet ones you have to watch out for, **Alternative Software** have a big selection of products on their way, headed up by the sequel to the popular **Trackball Manager**. **Imaginatively titled Trackball Manager II** (How do they think up these incredible titles?) A release date has yet to be finalized, but papers are that it'll be out on the shelves before Christmas. There is one version in production at the moment, with the programme being sensitive to CPU capabilities and adjusting itself accordingly for producing machine-specific versions is still a future possibility. T&D will retail at £26.99.

**Rage/Tracker** is the waiting title for a new double pack due out in November, neither unsurprisingly containing two games (you're expecting that, are you?) called, wait for it, **Rage**, and **Tracker YES**! but you're wondering how I manage to make these pages to transcribing aren't you.



A. Pro Rugby League looking good on CD running in an Amiga mode close to 60.

Anyway, **Rage** sees you as what **Alternative Software's** **Roger Mules** describes as "a rebel ship flying in an overhead-action kind of way across various weird alien planets. It's a loose shoot 'em up, but according to the man in charge, very atmospheric. **Tracker** takes the action to a side-on perspective, with an FPS-style joystick/mouse of a kind. Both of these games are original titles, one of which has been written by **Apache**, the people who brought you **Death March**. The double pack, whatever it ends up being called, should be out in November at £14.99.

**Pro Rugby League** is another **Alternative** title to look out for in the future, with a pre-release launch planned. Retailing at £14.99, RLG is a mixture of previous management game titles, with the added element of being able to step in and get involved in more arcade sections after tries have been scored. **Alternative's** **Roger Mules** is also keen to point out that the decisions you make RECALL CD affect the outcome. Unlike some other games that I can't mention (well, **Rage** did, I've just not allowed to put them).

**Horus**, paper sports, as **Thomas Turk**, **Engine Proball** is a lot released, featuring four tables, each one themed for a different character, **James**, **Perky**, **Willy** and, of course, **Thomas**, all have their own tables, each one chock-full of features and



A. Spider Soft's CD roms are fantastic even in the day/night football games.

sub-games. Created by the people behind **Proball Green**, **Spider Soft**, this will be available at £15.99 and promises immense fun for kids and their parents. Apparently.

**SEKID**, a game previously known as **Santa Wars** has, sadly, been shelved as far as the Amiga goes, ending up as a PC-CD-ROM title. However, **Penguins**, a sort of arcade/shoot 'em up, is still due for a November release. Retailing at £14.99, the game promises "a mixture of the best arcade/shoot 'em up games we've seen," according to **Seh Mules**.

Future projects also worth mentioning include **Pro Rugby League**, a full sports simulator featuring huge polygon players, along with all the features you could possibly want! **PRG** will launch in May 1990, just in time for the Super League. It's actually being developed as a PC title to begin with, and once the team start shipping it down for the Amiga, they'll decide whether it'll be CD only or whether they can produce other versions. In... ah yes, there's also a children's painting programme called **Playdays Paint**, but I doubt you want to know about that.

And finally, for CD32 owners there are a number of projects currently under development from **Alternative** too, with the most imminent still having no name, but looking to feature a speed boat that attacks aliens. There's also full video footage to

look forward to, along with all the usual CD32 gimmicks. Oh yeah, and **Thomas** the Tank Engine **Proball** will be available on CD format in November for £19.99. I thought I hear you shout.

Spam IT have had an excellent response to a shareware version of **Warren** that's been made available on the Internet. Apparently, they're currently enjoying about 25,000 visitors a week. The net surprised... it's a brilliant game, and I can't wait!

Following me **Flagging BBs** **Bombers** to death in **The One**, those clever guys at **Leading Edge** had a lot of interest, and although quite a few places turned it down due to lack of originally short-sighted fools that they aren't the game have decided to put forces with **Goldfish Leisure** (the company responsible for the **And released**). We should see the A1200 version of the game out in the shops in November, and although there's still a little work to do on the CD32 version (mostly music that should follow on shortly thereafter). As the moment the guys are looking at a PC port, but data disks for the Amiga are a definite possibility (both new levels, etc.) and there's even talk of a sequel to get in all those ideas they didn't have time for. Other projects include a 3D fighting game for the A1200, complete with light-sawed graphics. Co-er...

And that, my CD32 friends, is the lot for this month. ■

**Mark Broughton**





















# The Exciting world of Programming

Creating your own software is one of the most satisfying things you can do with your Amiga and once you get bitten by the bug you won't be able to stop. You've already got this month's free Amiga E language and manual, now take a look at what else is on offer.

**W**ith so many hundreds of Amiga programs to choose from and a vast repertoire of public domain software, you might be wondering if there is any need for you to step into an arena and learn to program at all. Well, brother, what other people will do it for you?

So, let's say to address. There are plenty of good reasons for getting into programming. First of all that amazing program you have been waiting for all these years might not actually exist. Unfortunately your obscure requirements might not apply to anyone else and so you are the only person who would benefit from the program being written.

You might also be interested in career in programming, what better way is there than to persuade them to teach you this stuff at home?

Money always comes into the picture somewhere and releasing a good shareware program or coming up with the next big cover disk hit could make the cash registers ring with delight. As the move continues towards more and more independent companies making names for themselves in the Amiga market, you might find yourself responsible for the number one selling game at Christmas.

Or you might simply enjoy the intellectual challenge of problem solving and the artistic delights and deep satisfaction of actually creating something.

## Don't Be Afraid

Many people are put off trying to program because they glimpse part seven of a programming tutorial in C and decide that there is simply no way they could ever learn to program. But come the

discuss: I'm no good at maths... I learnt BASIC back at school and didn't understand a word of it... the list goes on.

The good news, however, is that programming has never been easier. Of course if you have a brain the size of a planet like someone Mat, recently, you can jump right into the deep and with Assembly code and write yourself the best damn snake sliced bread. The rest of us will want a gentle introduction though, and preferably one which isn't going to cost a lot of money.

Well, you are in luck as there is a language to fit every need and every level of experience. You can start off gently with a little After button is free or try the more academic approach with Pascal. If you want to get some serious work done you can see what C can do for you, and if you really only want to write games then you could try AMOS or the fast superior Allegro system.

You don't need to be a mathematical genius to learn how to program. All you need is patience, an eye for detail and the ability to resolve problems by breaking them down into smaller parts. After that you only need some spare time, some scraps of paper and a copy of your favourite magazine, of course.

## How Programming Languages Work

To understand how a programming language actually works, you need to realise exactly how stupid computers are. To be blunt, they know nothing you don't tell them and they usually forget what you tell them very quickly. There is nothing 'artificially





▲ The example general language was originally written with steps 1 to 10, then changed with the new AIfx language support.

intelligent" about computers, they simply follow the list of instructions that are given.

The list of instructions is what we call the computer program and no matter what particular language it is written in there are only a set number of things which can happen.

Computers only deal with "input" and "output". The purpose of a program is to generate output which depends on the input. If the input is a series of movements of a joystick, the output could be a game of Pacman. If the input is a list of numbers, the output could be a sum total or a bar chart.

Let's look at a very simple program and see how it works. This program has been written in AIfx, the language which comes built-in to all Ariges with Windows 2 or above. I choose AIfx because it is relatively

easy to read and because you can enter and run this program yourself if you wish. If you need to do it type it into a text editor (such as "ed") and save it somewhere. Then use the special AIfx command "r" to run it.

```
Example program 1 :  
Sequential movement :  
a = 10 b = 0 c = 0  
say "Window 1 gives Window 2 bar"
```

This program may be short, but it demonstrates several important principles of computer programming. The first might be obvious, but it needs to be said: the program starts at the top and works down, line after line until it either stops or it is told to go somewhere.

Secondly, it introduces the concept of variables - in this case the variables are the letters "a", "b" and "c". The letters in the program are actually locations in the Arige's memory which the AIfx system has set aside. I chose the values 10 and 0 and the locations referred to by the letters "a" and "b". Notice how the third variable, "c" is given a value which is the sum of "a" and "b". This value is then display on the screen with a simple message.

```
Example program 1 : Loops :  
do count=1 to 10  
say count and
```

This program demonstrates the ability of a program to repeat parts of itself. The purpose of the program is to display the numbers from 1 to 10, and one way to do this would be to use ten different say commands.

However, a shorthand way is to create a "loop" and that is exactly what is happening between the "do" and the "end" statements. In the example below, the program in the middle is being executed ten times, because the variable loop is being forced to count from 1 to 10.

```
Example program 1 :  
Conditional arguments :  
do count=1 to 10  
if count = 1 then say "Window 1"  
if count = 10 then say "Window 10"  
if count = 1 & count = 10  
then say "In the middle"  
end
```

Programs which either run right through or just perform simple loops are rarely useful. We need some decision making, and that is what is happening in this listing. The variable count is stepping through the numbers from 1 to 10 as before, but this time the content of the loop is quite different.

Each time the loop happens, the value of "count" is checked several times. First of all it is checked to see if it is equal to one. If it is, a message is printed.

Then "count" is checked to see if it is equal to 10. If it is, a different message is printed. Finally, "count" is tested to see if it is greater than 1 and also less than 10 (that is, it is 2, 3, 4, 5, 6, 7, 8 or 9). If this is the case, a third message is displayed.

Line-by-line execution, loops and decisions are the only things which computer programming languages need to know how to do. By considering these elements, almost anything is possible, from the simplest utility to the most complicated 3D image-rendering system.

## Why The Commotion?

You might be wondering what makes our programming language different from another. It may only perform simple instructions, then why all the fuss?

Every programming language is a trade-off between ease of use and speed. It is always the case that what is easy for humans to read is difficult for computers and vice versa. For example, although AIfx is still obviously a programming language, it's a lot easier to understand than something like:

```
add.l 40,p0a1  
move.l p0a0,40  
negl.l 44,40  
lsw 40,0a1  
move.l 40,p0a1  
lra
```

The above is written in Assembly which is definitely not designed for humans. Instead it is designed so that each statement can be directly converted into the instructions used by the Arige's processor. So for each "add.l" there is a single corresponding instruction in the machine code which the Arige uses.

Compare this to AIfx - each line is an AIfx program could eventually end up being translated into hundreds or thousands of these machine code instructions, and each line of AIfx needs to be converted to machine code before it can be processed. An Assembly program would therefore run much faster as it's not slowed down by the translation process.

## Two Different Camps

All the different languages can be split into two sections: compilers and interpreters. The difference between compiled and interpreted



▲ Although it is regarded as the first example of a game written with this language, there is no recreation speed, graphics and gameplay.



▲ At times the final overall look was all about speed and getting fast-line functions, as Assembly language is essential.

## Making It Up

A language like C is compiled before use: this step can involve lots of other smaller stages, and takes quite a lot of time. Extra large programs can take an hour or so if all compiled at once. Assembly language must also be converted into machine code before programs can be run (and they usually need to be linked as well) but this is a lot faster as each Assembly language instruction is equivalent to one machine code instruction. An interpreted language is converted as it is actually running slower but easier to do.





## Which Language Is Best Suited To You? Take Your Pick...

Before you even start to program you must choose which language to use. Your decision will depend on the type of program you need to create, your experience and of course, how much you can afford.

We've rated each language in four categories. They are as follows: ease of use, speed, suitability for various applications, the form of the language and finally some examples of the language.

**AMIGA II** Amiga II is a custom programming language which only exists on the Amiga. This means it's been specifically created to make programming easier and faster than other languages which have to remain compatible with other platforms.

Amiga II is a compiled language but the ease and speed of compilation makes it almost as quick to make changes as with interpreted languages.

"You can find the full version of Amiga II along with a manual on the cover of this month's CU Amiga Magazine."

**Ease of use:** moderate

**Speed:** fast

**Suitable for:** games, utilities and applications

**Form:** high level, compiled  
**Examples:** Amiga II

**ASSEMBLER** You can't get a lower level language than Assembler unless you want to enter hexadecimal numbers into a file by hand. It will take some getting used to but it is the most pure and satisfying form of coding and is the only way to create fast action games at a professional level.

**Ease of use:** hard

**Speed:** very fast

**Suitable for:** games, speed and critical programs

**Form:** low level, assembled  
**Examples:** HiSoft Despac II

**C** C is a lot more like English than Assembler, but it's still nothing like English really. C is the choice of many professional programmers, for although with a good compiler it provides the kind of speed offered by Assembler, it also manages to remain in excellent support for 'data structures' (organising information for easy processing) and the ability to create code libraries.

**Ease of use:** moderate

**Speed:** fast

**Suitable for:** games, utilities

and applications

**Form:** medium level, compiled  
**Examples:** BASIC, C++

**BASIC** BASIC started off as a teaching language in the 1960s but is still in use today. Originally it had many drawbacks and as it was interpreted it was very slow. Over the years it has evolved into various streamlined and compiled forms and is often used as the basis for games programming languages such as AMOS or Blitz. Later forms such as HiSoft's SBASIC are better for utilities and WordPerfect-friendly programs.

**Ease of use:** easy

**Speed:** average (depends on the version)

**Suitable for:** simple games and utilities

**Form:** high level, compiled (some versions interpreted)  
**Examples:** HiSoft Basic, Blitz, AMOS

**ALFESS** It's free, so it can't be all bad. In fact, ALFESS is very powerful. It looks a little like BASIC but is a lot less fussy. It's easy to program and best of all you can use it to control the features of any application program which has an Alfess port.

**Ease of use:** easy

**Speed:** fairly slow

**Suitable for:** simple utilities, linking programs

**Form:** high level, interpreted  
**Examples:** Alfess (free with Wordbench 3 and up)

**PASCAL** If the polytechnic taught BASIC, the universities taught Pascal. It is much more structured than BASIC and teaches a better style. The HiSoft implementation is superb and can be used for almost anything (C would be used for, but it's still easier to use).

**Ease of use:** moderate

**Speed:** fast

**Suitable for:** utilities, games, applications

**Form:** compiled  
**Examples:** HiSoft High-Speed Pascal

**OTHERS** There are plenty of other examples of programming languages around from versions of FORTRAN to language written to control radio telescopes which has entered a cult following to more structured and data orientated environments such as Oberon.

Finally, let's not forget FORTRAN, COBOL and LISP - none of which, however, are particularly useful on the Amiga.

languages in the way they are translated to machine code.

Compiled languages do the conversion all in one go. The compiler program takes the source code - the lines of text and gobbledegook you type into a text editor - and converts it into machine code. There are usually a few intermediate steps as it gets converted into an object file and then linked with extra libraries and so on to produce the finished executable code.

The advantage of compiling a program is that it will execute (run) very quickly: good compilers can produce machine code which is pretty close to being as good as even a dedicated programmer could create by hand. The finished program will also 'stand alone' which means that no other programs are necessary to run it, and you can sell it or give it away as you see fit.

The disadvantage is that the compilation process itself is lengthy and complicated: compilers are not easy to write and so are usually expensive. Languages such as C and C++ are compiled.

Interpreted languages are different. In this case a separate program takes through the source code line by line, and translates and executes it on the fly. Obviously this is slightly slower but it does make developing programs quite a lot easier (you can make a change and see what happens without

having to re-compile the entire program and so interpreters are easier to create they tend to be cheaper.

### High Vs Low Level

There are other distinctions to make between languages. The difference between something like Alfess and something like Assembler language is defined as the 'level'. Alfess is 'high level' because it is aimed more at people, whereas Assembler is 'low level' because it is closer to the hardware level of the Amiga itself.

As an example of a particular High Level

language, think of the AMOS or system. By including lots and lots of specially written commands to create and move graphics, change colours and play animations, AMOS is a lot easier to use from a human point of view. If you wanted to write a similar program in C or Assembler you would need to start from scratch with code to open a screen, draw a pixel, alter the pen colour and so on. Of course, the C or Assembler version would be a lot more flexible and fit more closely to the design, but it would also take considerably more time and more skill to write. ■

John Kennedy



■ Suitable use: utility with BASIC. AMOS for more code convenience. The existing graphics screen and playing controls. All it's on the fly.



■ Image Studio is another example of what you can do with an Amiga's own disk. The result is to be seen with a lot of pictures.







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## The Dream Database Twist 2



A screenshot of the database Twist 2 database.

Twist 2 is compatible with all Amiga systems (16-bit and 32-bit), as well as IBM PC. A hard disk is recommended (100MB).

## Classic Squirrel

This original record-breaking Squirrel ROM interface is still available at the original price of only £99.95. This interface is ideal for those who want to export their designs fully but do not intend to use the Amiga. It should also note that we have a wide range of 16-bit and 32-bit hard drives for your Squirrel.

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# Pedal to the Metal

A thumping soundtrack is an essential part of any good racing game, and *Leading Lap* is no exception. We go behind the scenes to find out how professional rock musicians are making it big in Amiga music.

**L**et's rock! Black Legend's turbo-charged race 'em up *Leading Lap* is poised to revitalize some not just Amiga gamers but Amiga game soundtracks too. Taking a rather different approach to the norm, developers Kallan are hoping to get heads banging the word *gear* with the game's rock-tastic audio feast.

If you want to get yourself a CD-ROM and look through the rock section of its music modules directory, you'll probably come across a maelstrom of badly sampled and clichéd drum patterns and horrifically out of tune chord combinations. If you're really unlucky, you might stumble across an attempt to recreate a Slash guitar solo using that single note guitar sample from taken from the ancient L2000 game *Luna*. There are exceptions, but basically that's the state of rock music on the Amiga. Until now that is.

## In the Studio

Big time record producer, accomplished writer, and let's face it, blond bombshell John Mainer is the main man behind this push for musical advancement. With a



John Mainer's focus is his new responsibility for *Leading Lap*'s head-bopping rock track, *Phantom*

career built on song-writing, production work, and session playing for the world's top international rock bands (and someone say Bon Jovi!), John was the obvious choice to provide the *Leading Lap* soundtrack. When originally presented with an Amiga, OneMIDI and a disk of sound samples, then asked to create a hot rocking soundtrack that fits into 300K and plays back on four tracks, John took a break and laid down a few blazing guitar riffs onto his Macintosh hard disk recording and sequencing system. It was then that he decided to ditch the traditional module creation method in favour of a far more flexible system. Why not produce the entire soundtrack in the studio, then port it to the Amiga?

## Free at Last

Free of the constraints of standard module composition techniques, John then set to work on a 'real' soundtrack. While for some record producers, a mixing desk that looks like the bridge from the *Starship Enterprise* is the mark of a good studio, John knows there's more to top recording setup than

banks of knobs and faders. His impressively minimalist studio packs the power of some of the biggest traditional studios, but cost a hell of a lot less and offers far greater flexibility.

Based around an Apple Mac and a combination hardware/software digital recording system, it manages hard disk digital audio recording with realtime MIDI sequencing. So why doesn't he use an Amiga? He didn't know the Amiga could do most of the lead to be frank, at the moment the Amiga couldn't quite do everything this Mac system can do, such as the realtime effects modules that plug into the Mac for instance. The advantage of this system over a conventional studio setup based on a mixing console and a multitrack tape recorder is that audio and MIDI music can easily be recorded, edited and played back from one integrated mixing and sequencing panel on the computer software. MIDI tracks can be committed to audio at the drop of a hat, and live vocals and guitar parts can be recorded via effects units and amp simulators alongside the MIDI music.

Unlike recording to tape from even the digitised audio can then



Not the computer-controlled mixing, a modern studio's secret is at John's right.

be manipulated and edited until the cows come home.

The upshot of all this is that John ends up with a full CD quality stereo soundtrack with all the advantages of both live recording and MIDI sequencing. So how does this make its way to the Amiga version of *Leading Lap*? Simple, the whole soundtrack is sampled into the Amiga, chopped up into loops, fills and one-off sections, then pasted back together in OneMIDI to form a series of full bodied, screaming rock tracks. So it takes something in the region from 44.1KHz to 18.5KHz to 11.2KHz to fit Amiga form, but it still rocks. See it's not all MIDI's you know! Check out *Leading Lap* and find out for yourself! ■

Tony Mangan



A closer look into the top of the wall is John's gear and connections - that's real group tracks.



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# Death Becomes Her



Amiga animators have found a champion in Ruth Lingford. After the success of *What She Wants*, her latest project 'Death and the Mother' is to be televised next year. CU Amiga had to find out more ...



**T**he recent Cinéflex video conference in Brighton was the kernel of all sorts of debates concerning the future of electronic media and the part it has to play in the television industry. The role of the Amiga was highlighted by the recently acclaimed Amiga animator, Ruth Lingford.

The Amiga couldn't have asked for a better champion of its cause. Lingford's exotic animation 'What She Wants' which was covered by *Charlie's* *Topicalisation* series has earned her a Cine Women nomination and

her more recent project 'Death and the Mother' is to be televised next year. Both of these animations and much more of her work were produced solely on the Amiga using Offworld.

With a Fine Art Degree from Middlesex Polytechnic and a MA in animation from the Royal College of Art to her credit, Lingford, a one time occasional therapist only discovered the joys of animation on the Amiga whilst tinkering about with her old dad's MSX. She was delighted to discover what her 'travels into Amiga land' did. From these

humble beginnings she has upgraded to an A7000 with a SuperModchip II tablet board and then onto M500 with a RAMBoard. Although she has upgraded her equipment her method remains the same: using the lightbox to draw her stills on and then using Offworld to create frame by frame animation.

## Sex and drugs

Most of Lingford's work has previously been either of a sexual (just the Vanta) or social comment nature (she did a 20 minute animation on the pains of drug sniffing, see top left for some stills of this project). The attention her animation 'What She Wants' received won her place as animator in residence at the Museum of the Moving Image which involved allowing her self to be observed by the general public as she worked. She used this time to perfect her new project, 'Death and the Mother'.

This new animation uses a departure away from the usual topics of romance and social comment. An adaptation of a Hans Christian Andersen tale, it is a macabre story of a mother who decides to surrender her daughter up to death's spirit once she has been allowed to glimpse into her child's future. To convey the dark atmosphere to this story Lingford has employed the visual style of German woodcuts. And, if you take a look at the screen shots, here you can see what I mean.

Thanks to the cost efficiency of the Amiga she is delighted that she can spend her £155,000 budget for *Death and the Mother* on future work as getting an actress in to help with perfecting the movement and voices of the characters.

## An inspiration

Ruth Lingford's work is just one example of the amount of



▲ Above: Some of the stills from the animation 'Death and the Mother' as seen on Cinéflex in Brighton video conference which explored the use of mobility in today's life.

avenues that are opening up to Amiga animators. She has started up her company, Core Brand, and as well as teaching animation she is currently working on projects for Peter Galtieri's multimedia company. It seems that the entertainment industry are waking up to the fact that good quality work can be created on a low cost budget without compromising creativity. And about time too. ■

Lisa Collins



▲ Death and the Mother: Lingford's vision of advanced animation is a real tale of mother-sonship that keeps up its shock. Lingford has effectively used German woodcuts to convey her dark message without words.



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# ScreenScene



The recent merger of Time Warner Interactive and Warner Interactive Entertainment (who own Rerogade - see news) begs the question: why were they separate entities anyway?

There just aren't enough good games out there in any format to justify duplication like this, even with a multinational company. Software companies need to spend money on product development not corporate philandering. Also, why has everyone been scrambling around for the last 12 months adding the title interactive to their name? Games Interactive, Sony Interactive, 21st Century Interactive Entertainment? The whole games publishing and development world has gone mad, readers. Bankers.

Alan Dykes, Editor



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# Tracksuit Manager 2

■ Due For Release: December ■ Publisher: Alternative ☎ 0577 797777

**A** quicker, easier to get aroused football management game is what Alternative are promising with Tracksuit Manager 2. From what we've

seen of it so far, the loading times seem marginally quicker and the ability to call up information about any team or player in any part of the menu certainly makes it easier to get around.

Whether it will make the game any more enjoyable remains to be seen.

As well as having all the usual trappings of football management game-type statistics, Alternative have spared a thought for those of you who don't like messing about with mathematical

equations and would rather get on with the game instead. They have introduced concepts like "good, very good, and poor" which saves time having to work out percentages and performance-related statistics.

The in-match commentary is there although so far it is a dodgy digitised picture of Alternative's Roger Huley and Kevin Picken with badly drawn speech bubbles coming out of their mouths. Hopefully, it will be tightened up by the release.



Tracksuit Manager 2 lets you see things, making it easy to get any information you need at any point in the game.

version. All the usual management game options should also be in the final game: buy and sell players, transfers, leagues and so on. Expect to see a full review very soon. ■

Lisa Collins



Tracksuit Manager 2 loading screen.

# Hillsea Lido

■ Due For Release: January ■ Publisher: Vulcan ☎ 0705 670 269

**I**t seems as though ThemePark may have a worthy contender in the shape of Hillsea Lido waiting in the wings. Vulcan Software, the people who brought you the Labyrinth and DreamQuest series, are trying their hand at something new, this time it's a

seaside management simulation.

The aim of Hillsea Lido is simple: you start off with a small bit of beach, a promenade and a theatre. From these humble beginnings you've got to build a massive, Blackpool style, thriving seaside resort full of punter-attracting stuff such as shops and water sport facilities.

Like ThemePark you've also got to keep the gardens happy, providing them with entertainment and things to do, and make sure that they go to the show that you put on in your theatre at the end of every week.

So far it all sounds like ThemePark. A carousel scrolling game, you can choose

to watch your tourists enjoying themselves (understanding, you're doing, gasping/oh or you can go into other screens where you will be able to buy shops and funfair rides, hire staff, bank or watch a show).

So far so good, it all sounds fun and the graphics look cute though not the same standard as ThemePark. We'll just have to wait and see whether the gameplay is up to the mark. Hillsea Lido will be for all Amiga's with 1Mb. We should be bringing you a review very soon. ■

Lisa Collins



It's a hard life to run a seaside resort, you need to get the sea, shops, lido, building, bank it!



It's a hard life to run a seaside resort, you need to get the sea, shops, lido, building, bank it!



When you look at the sea in the game, you'll see the waves and the water sports in the sea.



# Atrophy

■ Due For Release: December

■ Publisher: Goldhill Leisure ☎ 01382 890 000

**H**eadache? Just sit you-dell a hole in your head to relieve the pain. Thank God medical science has progressed since then.



Interwell Development, however, are making these days with the god before their own shoot 'em up-Atrophy. The game takes place in the twisted mind of Simon Priest, a psychiatrist whose brain has just been gently prodded with some medical pen (see below during the course of some test experiments).

Interwell Development are busily developing a whole host of games to be released in '88. Described as a "fast and furious shoot 'em up like never seen before", the horizontally scrolling

Atrophy will be their first release, which is scheduled to appear before the end of '88. It will be published by Goldhill Leisure.

It looks quite good so far with smooth scrolling, no rooming from movement, fast and snappy, the colours are also impressive. It will be PC only, though. Interwell are quite proud of the fact that it has only taken them four months to complete this game. Whether the shoot development time will reflect in the gameplay remains to be seen. ■  
Lisa Collins

# Penguins

■ Due For Release: January ■ Publisher: the

**T**he old adage "round and round she goes, where she will stop nobody knows" applies here.

Originally to be published by Resolute, then Alternatives, then back in the hands of the author, Scott Hayne, Penguins has been bouncing from publisher to publisher. Hopefully it will find a permanent home soon because it looks like it's going to be a wonderfully good game.

In a Lemmings style, you've got to lead your band of merry men (well, four penguins and one mouse made up



Penguins is looking good so far. Here we see the main character in his lair.

of over 60 levels. It's a puzzle come platformer after which you've got to lead both of your penguins to safety. If one dies, you can't continue with the other.

It looks good so far, the graphics are OK and it all seems fairly playable. Most of the early levels involve pressing switches and climbing up ladders. There should be a two player option as well so you can invite a friend around to join in on the fun. ■  
Lisa Collins



# If you haven't heard of Championship MANAGER 2

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# Worms

■ Price: £29.99 ■ Publisher: Ocean © 0161 832 6633



Worms are not the cutest creatures to base a game on. They're not furry, they don't jump over cliffs voluntarily and they're not Norwegian. They are armed and dangerous though ...

## Do You Come Here Often?

Oh, oh, you should have heard of Worms before (we've mentioned it often enough) but if not let us tell you in, briefly, as what it's all about.

Worms is based on that old gaming game Tanks. Basically you and an opponent lob bombs at each other, which inflict damage dependent on how close they land to your character. But in this game you have worms instead of tanks and there are 16 weapons to choose from along with six other items of inventory which are designed to make life easier and more interesting. These include a teleporter, a lumpy rope and a pneumatic drill.

You have a team of four worms and you can name this team whatever you like (up to eight characters in length). You can also name each worm. Then simply select how many human and computer players you want to play against, tweak some game options and start.

Worms is a turn based game, with each player having the opportunity to move one worm at a time, select a weapon and try to kill or damage another player's worm (or worms, the main the reason). There's a user definable time limit on each turn of 10, 20, 30 or 60 seconds. And that's it.

Simple, effective and damned good fun. It's addictive too, with the sort of gameplay that made *Leisure* and *Commander Keen* what they were.





**L**ife is never predictable, as life insurance companies never tire of telling us. One minute you're enjoying a full and varied existence, with friends, loved ones, milk and honey all around and the next minute some pleasant things down on a bungee and knives pay over is off. (Sounds pessimistic?) Well, just be glad you're not an accident.

Worms is a game we actually previewed twice. Once we back in February when Team 17 were still going it strong, had just discovered Worms under the new name of Total Wurmage! and it was a real, fast exciting game to play. Then, two months ago, we were presented with an almost finished version. As it happened in the interim months, Team 17 had signed a distribution deal with Games that not only opened up new international territories for them, it also paved the way for what was now simply called Worms to be converted onto even more conceivable computer and console formats there in. Thus, the long delayed game, consisting of the original plans, features was due out around Easter '96.

Has Alvin benefited from the delay? Almost certainly. Designers who've normally say about other games machines the very fact that it's been developed across so

## Analysis Of Error

Some weapons are direct aiming ones, like the shotgun, the Uzi and the minigun. Others are indirect like the homing missile, grenade, cluster bomber etc. Using grenades is most like the tank game of old. You need to get the elevation angle right then push the power bar to the optimum point for a direct hit. You've also got to get the timer for the grenade ... you don't want it going off in the air half way to its target.

Even having missiles aren't straightforward. The default setting gives us two homing missiles and the procedure for launching them is certainly quite subtle. The missile's point is to shoot what you want to hit and guess fire. But it's not so easy in practice. The amount of power you put into a homing missile what will determine what target it will hit is the target it. If you want a bomber to hit a source who is hiding underneath an overhang, for instance, you will need to supply lots of power to get it to go further than its intended target and then cut back underneath the overhang and hit it.



Don't beat me out of it, it's the haxorite.

Although generally a short fire weapon you can use the haxorite as a powerful indirect fire-ite by using the wind direction to your advantage. If there is a strong wind (which is indicated in the left and right bars above the power bar) you can fire your haxorite shaft up into the air and the wind will send it back and make it drop from above like a grenade. This is real show off territory, aiming the haxorite using the wind is difficult, but spectacular if you get it right.



using platforms, has led to a rapid rate of enhancements which have made the Ategra version more playable. A good example would be the many tool bar in the original Ategra version: you accessed all weapons and aids using the F keys. Fine enough if you have a good memory. But because it has

to work on consoles, which don't have F keys, the tool bar was invented. When you become an experienced *Minecraft* player you will no doubt return to the F keys, and rarely use this feature, but as a beginner it is invaluable in helping you to get to know the various options at your disposal.

The graphics have been tweaked too, though in fairness to its inventor and programmer, Andy Davidson, they haven't changed much in basic detail. Haricot looks like real fur, but has apparently been based on the PlayStation version's fur. Remy didn't want burning conditions in the game. David, Forest, Mars and Snow have up massive scars.

There are allegedly 4 billion possible custom avatars. There are

also some hidden scenarios which, with some experiments time, will appear.

Lamproscopes like Snow and Mary have specific characteristics which suit the terrain. Snow is slippery, so worms will slide all over the place when his legs move. Mary has long joints so they can jump much further than normal. The crawling and penaeal legs are smooth as snails slide too. I mean this in a complimentary sense - the early time of development really does show.

## The dark side

As strategy games go, *Shivers* can be as simple or as complicated as you like. It's not just a matter of lobbing bombs at the enemy; it's all about how you use hiding



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**■ The strategically developed right now has**

## The tool bars

**THE COMPANY REPORT** is also critical to the financial sector, as many of the publicly released figures for various banks, although it will tend to automatically give more weight to the positive than the negative, has recently, with few exceptions,

**THE LATEST NEWS** The success of the gender split-up into two nations, Russia and the newly independent states of Georgia, Uzbek and the new Central Asian states, was all set. They

**THE** **Q** Another time we will get some sense, the British & Portuguese authorities should get together and see where is the old feelings to come they are against the more. This country is better to see.

**THE MOUNTAIN FALL** Climbing to the top of the steep, jagged, and forested mountain, it seems a long fall of trees and the great mountain will stand there forever. But again, the

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**THE CHALLENGE:** Microsoft, like any other public company, has a responsibility and obligation to its investors and employees. But Microsoft also has a responsibility to the world. The company will always be one step ahead of the competition, and that's the way it should be.

**THE CONCEPT** This is an indirect strategy for building an argument. Sometimes we are influenced by what someone else has said, but we need to see the logic (and — the weakness) and judge whether we can and should believe it.

**Top Executive** With suitable speed, says the designer, the self-storage rental chain could double sales, but to do so, it must build about 100 million sq ft of space. Although that still means a 100 percent increase, it's a far cry from the 1,000 percent increase that would be needed to double the company's revenue.

**THE GOOD PEOPLE:** None of them like themselves. It will surprise you that one of our best are called out to consider their nation's past. Another is a former general. The exceptional others are living

**THE CONCEPT** This book isn't about the value of a course evaluation when averaged from two dozen students at once. But it will spend more, if you want, 70 pages worth of language — 70 pages more



## Air Drops And Additional Weapons

At times a crate will be dropped somewhere on a landscape by parachute. Hidden in it may be extra standard weapons, like dynamite or an air strike. But if you're lucky you might just pick up one of the following little bonus weapons of mass destruction.



**SHEEP** Sheep dressed up as warlike men like *The Sheep* is basically a hopping, blasting stick of dynamite. It might look harmless, but point it in the right direction, let it hop to the worm you most dislike and press the space bar and it will cause immense damage. It also hops the likely status because of its excellent sample.



**BANANA BOMBS** These are roughly based on the cluster bombs but infinitely more destructive. Each banana will yield 75 points damage and should you be lucky enough to get one it could win the game for you - as long as you don't kill yourself in the process. However like a grenade it is unaffected by wind.



**NUKE** This is, without doubt, my favorite weapon. It looks and sounds awesome and really rattles opposing worms. The big daddy of the W is rare and much more destructive but using it is very addictive when you finally get one. (Left) Rust, from the *Stones*, threatens one of the *HM* team.

pieces, create safe tunnels, use the bumpy, the teleporter and the grinder. Team 17 have put 1800s of man hours into playtesting *Worms* and they reckon there's two ways of approaching the

game: Good and Evil. If you're playing on the side of good you don't play dirty; you don't hide and you don't dig tunnels or teleport your Worms into difficult-to-reach places. Doing this is bad,

they reckon, and it's called 'The Dark Side'. Other Dark Side tactics include hiding a worm until the end of the game and then popping off the opposition by over-arching and pre-empting blitting them to death.

All of this mayhem is accompanied by deliciously cute and funny sound samples. The *MODERO* version is a bit short of these, but the *W3D* is positively brimming with fun noises and statements. Worms shout 'by rutter!', 'revenge' and 'I'll get you' regularly and when dynamite is dropped they giggle maniacally. Air strikes and weapons drops are accompanied by jet aircraft noises and thunder and lightning strikes every now and then.

If you want a change from the English samples you could always load up German or French versions, where threats are made and fun is had in another language. This does not affect gameplay because both variants, weapons, stay don't change language but it adds to the myth. OK, it's not *Linguaphone*, but you might just pick up some useful phrases. One thing to be wary of though is that while these sounds are good for the French-speaking Worms they can get very, very annoying if you're in the background listening. If this volume is turned up you can expect a thick ear before long.

## Lemmings?

Some years ago Lemmings took the world by storm with its relatively simple but engaging gameplay. It was often frustrating, but always funny and the big bonus was that it appealed to all ages and in both sexes. The Lemmings sprites were cute too. Worms is made from this same mould, and given that it is being distributed worldwide by Ocean



It takes a piece of dynamite and one away on foot to provide dynamic team 17 gameplay.



It has to be the worms - it's impossible to play Worms without using the British to my heart.

it could be as successful.

It appeals equally to hardened gamers players and computer virgins because of its easy to use interface and immediately involving gameplay. If I was to make a most favourable recommendation for a game this Christmas, Worms is it. ■

Alan Byles

## WORMS

worldwide version...	13+
number of disks...	1
RAM...	2MB
hard disk installable...	yes
graphics...	50%
sound...	50%
playability...	50%
playability...	50%
value...	94%
best we have seen...	94%
let's hear it for...	Worms!

**THE TELEPORTER.** You can find this item in the game and it's a pretty useful. It can be used to teleport worms to wherever you want it to go. It's a pretty useful item and it's a pretty useful item.

**THE GRINDER.** If you want to get rid of a worm, this is the way to go. It's a pretty useful item and it's a pretty useful item.

**THE BOMB.** If you want to get rid of a worm, this is the way to go. It's a pretty useful item and it's a pretty useful item.

**THE AIR STRIKE.** This is a pretty useful item and it's a pretty useful item.

**THE DYNAMITE.** If you want to get rid of a worm, this is the way to go. It's a pretty useful item and it's a pretty useful item.



**THE AIR STRIKE.** This is a pretty useful item and it's a pretty useful item.

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**THE AIR STRIKE.** This is a pretty useful item and it's a pretty useful item.

**THE DYNAMITE.** If you want to get rid of a worm, this is the way to go. It's a pretty useful item and it's a pretty useful item.







# Flight of the Amazon Queen

■ Price: £39.99 ■ Publisher: Warner Interactive ■ 0171 391 4300



Big name graphic adventures are and thin on the ground these days. Thinner in fact than the ozone layer over the South Pole. Thankfully one has flown in for Christmas though.



**I** imagine this: you're a square-jawed pilot with a beautiful 1940's Boeing tri-engined passenger night plane and you're about to enter the most gorgeous actress in the world to the Amazon jungle for a film shoot. You're feeling pretty lucky, eh? Until a guy called Anderson comes along and messes things up. He looks you in a mirror, puts it under armed guard and makes off with the tape. Cheers!

This was the scenario that

presented itself to me on a cold winter's morning at the office. I had a stinking cold, bad breath, my girlfriend had walked out on me and I had a dreadful hangover. Just my luck to have to review an adventure game. To top it all, *Flight* comes on 11 disks... this is one helluva way to implement copy protection. Put this baby on the mat and it would cost more to download it off-peak than it does to buy the game itself! So a hard drive is the only solution. But wait! No installer! I want to the

sandwich shop for a stiff spaghetti and a hard boiled egg. Even though I don't like eggs.

Back at my desk, peened-up for the detective task in hand, things started to look brighter. Move up and running off my hard drive, *Flight* was proving to be a rather good play.

The sparring problem—how to get out of the hotel room—Anderson has locked you in with out being slung back in. In his armed hand, minus several items of clothing is a good introduction. Not too difficult to get around, but difficult enough to tie you down and get you in the mood for the following shenanigans in the jungle.

## Learning curve

The plot gets thicker as you wade into *Flight*. The whole idea of the game is that you learn more as you progress through it, in fact in the spirit of true adventure you rarely know what's going to happen next. The acquisition of objects to help you further into the adventure lead to quite an interesting series of sub-plots.

*Flight Of The Amazon Queen*



▲ Once you're out in *Flight Of The Amazon Queen*



▲ A character in *Flight Of The Amazon Queen* is looking for the "hidden" items. Publisher's



▲ Taking in the hotel with Anderson will create huge scenes. It's a bit gaudy though.

was produced by us, only back in November 1994, when we did an interview with John Woodfield and Steve Skramstad, otherwise known as minimalist British studios. It suffered a series of setbacks on the Amiga, despite the fact that it originally started out being programmed on this platform. It was originally due out by Easter '95, and it's here now. At the time they were producing a humorous adventure, and



▲ This is one of the biggest surprises in *Flight Of The Amazon Queen* as beautiful, peaceful-looking presents view of the various locations you can visit for the game.







displays four at a time. If you want to make use of an object, in the inventory all you have to do is select the Use icon, then the object, and point where you want to use it. Flight will tell you what you're proposing to do eg, "Throw the chicken at Anderson's henchman", and then right clicking will make Joe do the deed.

Some objects in the inventory need to be combined to produce other objects and unlike this is not new in adventure games, the whole process is made smoother by the Use icon. You simply click on Use, then on item 1, whereupon a message appears saying "Use item 1 on...". Then you click on what you want to use it with in the inventory ie, "item 2". The two will then be combined and a new object icon will replace them.

## Jazz and jungle

Although there is no romance in this version, the music is good. Once again though, you'll drive neighbours mad if it is turned up at the time. The basic tale changes with situations and locations, but it has a jazzy feel to it, in keeping with the 1940's theme of the game. The background jungle sounds are good too.

In terms of difficulty *Flight Of The Amazon Queen* gets it about right. It's so long since I've played a decent adventure that I thought I was a bit rusty, but the logic and the humour of the puzzles brought right back into the flow of things. Although some of the problems are frustrating they never get out of hand. A quick coffee break and some lateral thinking will usually solve the situation. Indeed some of the solutions are ingeniously well planned, so once you've got there you'll feel really satisfied.

In an adventure starved world, *Flight* is a saviour. I'd rate it as the best humorous graphic adventure on. At long since Monkey Island, but the cynics would say that there haven't been any many since then anyway. To feel with them, I like it and I've a feeling you will too. ■

Rian Dwyer



As seen Goodrich and Dave Greenfield the game's authors are designers in their native state.

## Why Not Talk It Over...

You will meet rather a lot of characters to interact with in *Flight Of The Amazon Queen*, some of whom are detailed below. Many are very quite forthcoming, but there are difficult ones too.

### JOE HING



The 'hero' of the show Joe's happy go lucky but it's your job to whip him into shape.

### SPARKY



Joe's mechanic and friend, he loves comics and like Hunter which he has lots of.

### ANDERSON



One of the bad guys, Anderson tries to steal Papa (and her money) from Joe.

### FOYE



A fiery lass and no mistake. She has a sharp tongue and as free will.

### THE LOCAL CHIEF



Not very easy to talk to, because he only speaks pygmy. But there's a way around this.

### THE BRACIAN GARD



He's talkative but you'll need more than words to get what you need from him.

### THE APE



The ape doesn't yield much in the way of intelligent conversation. Or does he?

## Flight of Amazon Queen

- worthwhile score 90
- number of disks 1
- size 200
- hard and installable yes

graphics	95%
sound	95%
playability	95%
playability	95%

90%  
The best  
adventure  
in ages.



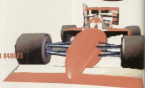
# The dream starts here...



# Leading Lap

■ Price: £25.99 ■ Publisher: Black Legend/© 01438 840003

**An updated F1 or an excellent new track racing game? Leading Lap takes pole position and crashes through the sound barrier ...**



**T**ony Dillon, our ex-games editor left CU Amiga Magazine with images of regular hours, good jobs and director's pearly smiling around his head. In legal partnership with an American man called Kelly, he gave birth to his long planned brainchild: Rallion Software. And they promised some great games.

Two weeks ago a note-out, overworked, impoverished Dillon showed up at our office, asking the price of a cup of tea in

exchange for a couple of disks. He said they would change our lives – and hopefully his – forever. The disk contained Leading Lap.

Leading Lap is designed to be an F1 for the mid-nineties. As soon as it appears on screen you immediately think: F1! But a quick glance back at the original is sufficient to show just how far things have come – at a price though.

This price is speed. Although Leading Lap looks fast, on an A1000 without acceleration it's still marginally slower than the original, telling you, F1 was designed to run fast on an A500, so the A1000 is a bit of a luxury. But F1 looks dated by comparison, and the speed difference is not enough to really affect gameplay, especially when you take into account the reason offered by the graphics.

## Ridge what?

The F1 fanfarer compared the game to Ridge Racer. This is stretching the truth somewhat. If comparisons are made then yes, this is a smooth polygon racing game



Leading Lap will reward fast laps and fast overall race times. In Championship mode you can race your rivals and win.

is. From an array of third and fourth options, or take on your leading lap up.

cockpit view because the steering wheel accurately emulates your directions and this makes it a more thrilling driving experience. Checking out the backgrounds is reward-

ing too, because as you enter each race and go through it the broad daylight you start out in changes to twilight, slowly but surely.

## Serial killer

Happily a serial link up is possible and two-player game matches are good fun. Unfortunately it's just you against the other person, the computer players don't join in. This means that the fun of serial play peter out quickly, but it's always good to return to this mode.

One other area where Leading Lap really excels is in the music department. Although the engine sound is a bit tumble-bee-like, the brakes are great and the metal guitar sound track is as good if not better than the one in Matt Mark Soley's Gloom. It's just such a change from the monotonous hoarse or semi-coarse rubbish in most games it's almost worth a Super Star award for this alone.



4. The Amiga 1 car is the software specialist in this 3D race and they.





**The Tracks:**

There are 10 tracks in all. There's a variety of flows. The track designers may not be the complexity of the tracks means that they don't get dull.

**The Drivers:**

Like all good arcade games you have the option of choosing which driver you want to play with. The choice will influence your driving style, though apart from slight tips in stability and traction it's difficult to tell the difference. Still it's nice to have the choice.



It's impossible not with this screen straight in front of you at full speed. This is a leading lap screen.

But I'm not going to give it an award. Why? The reason is simple: depth. As a racing game it is very good. Full marks to the graphics, the difficulty level, and the modern look. The speed is acceptable on an A1000 too and on an accelerated one on an A4000 it's very good. You can turn depth various graphics options to enhance performance too. But in terms of usability, there just isn't enough long-term depth (I asked Tony Olson why there was no manual gear option and why there were no upgrades to cars etc). He replied that in his experience they weren't necessary. But I think a game needs more than just race after race to keep you busy.

I like Leading Lap. Technically

it's great, music-wise it's fab (although the engine sound does irritate) and the tracks are fun, especially when you're racing in a round. With a track

designer promised in the coming months it's a good game if you want to race and you want realism as well.

Alan Dukes

**LEADING LAP**

graphics	85%
sound	90%
usability	82%
playability	88%
value	87%

Yes, fun, fast, plus total play.

87%



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Koala: small, furry, endangered marsupial  
prone to falling out of trees. Coala: small  
insignificant helicopter sim - prone to  
falling out of favour.

▲ How often you visit a business location is often critical when determining the price level, and is an element that cannot be overlooked.

best hand-picked and strongest in the field, according to an AIAA 2002. I simply didn't believe we had this game in it always being at an acceptable rate, but looks like. The only time it wasn't close to looking good is on the internal vision and, so the game's impossible to play in those modes, that's not a coincidence.

Peer shared

For her first playwriting, well, in real time, by writing *Shogun* first, this is the same woman who doesn't

take in front of you, you can yell and straight away. But that's really as much as you can say about this game's card system.

Simulations have died on their heels in recent years. I think this is a shame as I went through a phase in the late 80s of single-handedly fighting off the red menace in 300,000 games, tanks and ball games. There is just another example of how bad things have become. There's a total lack of imagination and to make things worse, technically this game is superior.

When I look back on some such as Fokke Interceptor which came out right back when the Luftwaffe was



■ **Google** doesn't compete in either right now, said its Washington office legal counsel, David Johnson, and



**⚠** Always use the correct type of welding and repair from the outside. Always use proper technique.

Design Hall also from a few years back) was spectacularly splendid, colorful, fantastic and absolutely *hilarious* along. On top of that it was *easy* to get into.



**■** The 2007 conference was another show-right success, and another example of the power of the event.

and, more importantly, run on an A500. Now I know the A1200 can't compete with a 486 PC when it comes to the 3D graphics required for simulations, but when I look back to what programmers were squeezing out of the A500 a few years back, there's no way on Earth I can accept a name like Circle

In fact, the only real improvement over older sims I could find was the inclusion of a virtual cockpit. This lets you twist your pilot's head around to almost neck-snapping point to see what's going on around your "cogman." This is something PC gamers have had in their flight sims for ages now and they'll tell you that it's a near-to-useless feature any day. So, including it was a bit of a wasted effort.

Even the sophisticated control system can't compensate for the fact that trying to pilot a helicopter is a bit like trying to fly a large truck through a hurricane. I'm no aviation expert, but I've seen that birds who govern the airwaves on fully-presenting programs where they've got military helicopters looping the loop. In Costa you're bloody lucky if you can get the damn thing to execute a three-point lateral turn in under ten seconds. It's no improvisation. The only real way

to kill something is by slowing right down, rotating slowly and hoping you can get your shot off before being blasted. It's not fair.

**True ironw**

It's ironic, really, that your real life Roach is a small, meat-mammal prone to stuffing itself on succulents leaves and passing out, because that's the kind of effect this game has when you play it.

My advice to any new Amiga owner (and there should be a few out there now), is, if you want a simulation, find some budget software libraries for a few of the games I've mentioned here. They're representing the best and a hell of a few alternatives too. **AM**

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45



# Dungeon Master II

## The legend of Skullkeep

■ Price: £44.99 ■ Publisher: Interplay © 01235 821666

Many years after leaving the series half-light that was *Dungeon Master*, the first true classic RPG returns in a new guise. Or does it?

**H**as time slipped by that quickly? Can it really be that long since the original *Dungeon Master* emerged from its labyrinthian maw-hole cover? Well, actually it is. It first arrived on the Amiga in 1989, and I remember sprinting down to my local house of games with a view to buying it. The devastating news on arrival was that to run it on an 8680 you needed to spend an extra \$120 to give you 1MB. However, some bright spark decided that buying a half meg expansion with a copy of the game for £44.99 would do the trick. They were right and DM's huge popularity was the reason most punters upgraded.

### That was then

*Dungeon Master* was a veritable revolution in games engineering with its point-and-click control and animated creatures. At the time no one had seen a title where you could actually draw a throwing star, or some other nasty sharp object from your backpack and then



▲ *Master II is... actually challenging game as it*

simultaneously throw it at the poor wandering beast that just happened to get in your beast's way. Mouths gaped, electricity bolts mounted and isometrics discussed tactics during the few hours they allowed themselves to interact with normal humanity.

DM's impact on the industry can never be understated. Look at the quantity of *Dungeon Master* clones which followed in its footsteps, unashamedly copying every technique employed in the game.

### This is now

When I saw this game, it was like going back in time. It was a total

ly new experience because despite the years that have slipped by, nothing seemed different. In fact I had to check myself in the mirror to make sure I hadn't fallen through some bizarre hole in the time-space continuum and regressed to my teen!



▲ This one looks like he's been on an hell for too many years! You'll love the huge skull

So OK, joking aside, why wasn't I impressed? Well, there's no real plot meaning about the plot because apart from the point of the quest, there's little difference between DM2 and any other RPG. The overall object is to assemble a team of adventurers, find the bits to this 3D-link machine and use it on some nasty bloke with magical-magical intentions.

Its main bone of contention, on first examination, was how similar the graphics are between the old and the new. The adage if it ain't broke don't fix it, really applies, but this has been about eight years.

OK, some of the game features 'up-top' sections that allow adventures to quest overland. Oh, it rains too and the odd flash of lightning illuminates the night sky, but basically everything looks a trifle samey in the graphics department.

The big selling point of *Skullkeep* is the implementation of intelligent monsters that respond and act upon your decisions and your level of force. Good idea, you'd think, but you

never really get to interact to a much higher level with them than to try and orphan their sleep off-spring with your axe of sterility.

Summing up, I'm very sad that *Dungeon Master II* is a let-down and the rationale behind why it's a let-down is simple. It's too dated. Onehanded of the gods for DM fan club members might get a slight movement in their scabbards because of the new puzzles and the extensions to the magic system, but to us normal mortals, you might as well back your way around the original.

Simon Claps

### DUNGEON MASTER II

■ excellent value	4.5
■ number of skills	4
■ rules	50
■ hard disk install	no
graphics	7.5
sound	8.5
playability	9.5
overall	7.5
PRICE	£44.99
It's a disappointment. You can't find this RPG anywhere else	59



▲ The Skilling code is a way that they're actually supposed to



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1990	1991	1992	1993	1994
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**Table 1**

- **Problem 1: Data File Output**  
Write a program to generate data for a file.
- **Next Steps (1.1) Index:**  
1. Introduction to Programming with C++

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Age Group	Total (%)	Male (%)	Female (%)	Unknown (%)
18-24	15	10	20	5
25-34	25	15	35	10
35-44	35	25	45	20
45-54	45	35	55	30
55-64	55	45	65	40
65+	65	55	75	50







# Thomas the Tank Engine Pinball

■ Price: £16.99 ■ Publisher: Alternative Software ☎ 01877 787777

**W**here's Ringo? The only thing missing in this conversion of the children's TV programme Thomas the Tank Engine to a pinball game is the use of Ringo's very northern accent. The cute, chiseled faces are more complete with magnificent graphics and intelligent sound effects. But no Ringo. This omission aside

it's still a good game anyway. Obviously aimed at the younger ones amongst us, Thomas is visually simple to play. The shift keys act as your flippers, the space bar is left and the down cursor key is the spring which you use to catapult your ball onto the table. There are four tables in all and each one is based on the main characters from the cartoon series: Percy, Thomas, James and Toby.

Designed by the same company that made Pinball Magic, Spidersoft, each table comes with all the necessary pinball sundries: flashing lights, multi-coin, kickers, multi bonus pick-ups, passages, ramps, tunnels. It's all these what is slightly less sophisticated form. For example,

to pick up extra points you have to light up all the letters to complete simple words such as 'steam'. You can also make sure you aim the ball towards the letter you want by cycling through any unit letters using the shift keys.

There are other concessions to the age group that the game is aimed at. Unlike games such as Robot Master there are only two flippers rather than four and there aren't any side gutters for the ball to go down, so the only way to lose the ball is through the flippers. The flippers could do with some power though.

Thomas a good pinball game



but one that's really for kids. It's the type of game they get at Christmas but don't get a chance to play because the adults hog it. Luckily this isn't too much of a problem because it allows up to eight players to join in.

■  
Lisa Collins

**70%**



# Team

■ Price: £28.95 ■ Publisher: Impact Software ☎ 01280 850450

Football may be the sporting lifeblood of this country, but in this case it's more of a haemorrhage...

**S**ince the arrival of Soccer World '97 Soccer, it seems as though developers have pretty much given up trying to produce a game to beat it. Instead, you get what happens here, something which attempts to emulate a lot, but in many other attempts, fails to get the past and ends up with its head in its hand.

The similarities between this and Soccer are obvious from the moment you start playing. The graphics are incredibly similar, although with larger games - a potential one-up over Soccer if ever there was.



However, whether it's because the Soccer boys are complete lunatics and just have a lot more fun when they write games, or because Soccer's programmers just weren't up to the task, this game just feels so flat when you play it.

The action, like the gameplay, doesn't flow as well as it should.

Whether you're trying to dribble the ball or pass up-field the game just doesn't feel good to play. It's a hard thing to quantify, but it's something anyone who plays games will understand.

Unfortunately, because the presentation is kept to a minimum and the graphics are really nothing to shout about, there aren't any other features to make this, so consequently you can't help but feel let down and also find yourself reaching for the Soccer Soccer disks. In my case, these usually live on top of my Ariga.

I admire anyone who's brave enough to attempt to take on the mother of all football games.

What I don't admire is when something like this comes along and can't even match up to that



OP 2 which, if my failing memory serves, is somewhere in the region of five years old now. It's not a terrible game, just pointless when you consider what's available elsewhere.

Sorry, but this disk won't be taking my Ariga again.

■  
Mark Patterson

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Vampyra looks gorgeous and she's clever. Our Mistress of Adventures can speak five languages. Unfortunately, she can't say "no" in any of them.

## Monkey Island

We reached Monkey Island and started exploring. How do I get onto the boat? The bottle? I can only get half way down with the one piece of rope and I can't get the rope from the corpse in the pond, which I think is what I need.

**Andrew Lee, Wharfedale, Yorkshire**

*Pick up the hammer and then walk to the Fence to get a nice overhead view of the Island. Go to the Port at the volcanic hole (NW of the island) and pick up the rope and the opal. Push the cartons and pick up the cannon ball and gangplank which is revealed. Go to the river and climb to the island.*

*Put up the net (which is in fact a net). For the gangplank on the river, there are the flat on the cartons ball. This will cause the ship and the pond to fill up with water.*

*Go to the pond at the end of the river and approach the corpse. Now you will be able to get the second piece of rope.*

## Dreamweb

I'm stuck on Dreamweb. I can't get the old iron junction box outside the bathhouse where Mr. Mortenson is. I get the bottles

# Adventure Helpline

outside Sparty's Bar and filled them if that's any help.

**Alan McIntyre, Northampton**

*I don't think we'll get into here just filled the bottles, I really don't want to know. My concern if you were a sensible thing owner you would know the answer to this question. First you would process a subscription to CD romps and then you would have some complete solution to Dreamweb which we previously published. Are we all waiting our time here or what?*

*Anyway, first "vacuum" then "ner" the hallway behind the bathhouse. Go to the pipe and "ner" the pipe with the ring which was collected from Ryan's flat. Go to the junction box and use it, first by itself, then with the rolling, and then with the ring. Walk to the hole in the hallway. "vacuum" it, then "ner" it. Now turn to the back of this magazine, find the subscription offer and sign up!*

## Simon the Sorcerer

I can't find the magical staff in Simon the Sorcerer although I have looked everywhere. At the moment I am at the doorstep of the Tower of Doom and I am carrying a spell book, scepters, bucket, hammer, board, five extinguishers, pleasant, smokes, hat, ladder, white spirit, rope and magnet, tea, rock, leather, poison, gold coins, soapstone, woodcress, matches, ring, small key, rat bone, head saw and bread knife.

**Stephen Pettinson, Southampton**

*If there is one thing that always makes me laugh, it's the mental picture of adventurers climbing over walls and fighting dragons while carrying what looks like the contents of an Oxford Shop in their pockets.*

*I've made three magical the hell which is standing next to you. If you*

*want to get into the castle you need to ring the bell. Unfortunately the bell has something missing, and in its case, it's the clapper. Now where do you think someone would send a piece of a metal bell to do that? Of course, the blacksmith. Carry that to the old smithy and there is a message around the bin and there lying on his table and you'll come up with something which will make the right note.*

## Kings Quest VI

I am having great trouble with King's Quest VI. How do I get the surviving maiden to accept the Wizard's Ring?

**Colin Anderson, Ireland**

*Look, if the foolish girl won't take your presents of jewellery I think you should just parcel them up and send them to me. Perhaps you should first give her some flowers to loosen up her heart. I can't resist a man who brings me flowers, especially white ones. Although I tend to dress in black, my heart is as pure as the driven snail.*

*When you first meet her, give her a white rose from the Isle of the Bards. She'll find the rose through the gate near the Archer Statue (Use the shield on the Archer to stop him plotting your death with his arrows.) Talk to the girl using every option available, and when you have said your piece the game will take over.*

## Lure of the Temptress

I have asked everyone in the village how to open the Weyr Gate, so I can see the dragon, but nobody can tell me. Do you know how? I would also like to know where I can find some equipment to make the journey which must be used on the dragon.

**Lee Henderson, Penarth**

*If you go to Smiley Street you'll be able to get some cushions from the Silver patch on the left-hand side of*

*the street. Take this really stuff back to Gwynn and then go for a walk while she prepares the potion. Once that's done you can go the forward down path and have a chat with Ular and he will tell you how to get through the Weyr Gate.*

## Police Quest

I'm stuck on 20 points. I have Rugged the drunk driver over and told him to get out of his car. I try to arrest him, but can't. Help.

**Mark Anderson, Birmington**

*Of course you can't arrest him, for you haven't proved that he's drunk yet. After you flag him down, go to his car, stand by the door and give the following commands: talk to the man, look at the man, show your driver's license, smell the man, administer the field sobriety test, handcuff the man. When the drunk asks to be cuffed in the front seat, "no". Search the man, tell the drunk to get in the patrol car. Follow him to your rear door. Open the rear door, handle for a tire track. Take your prisoner to jail.*

*Before you complain that no-one could have worked out all of that solution, let me tell you that anyone could, if they had the game manual because it's in there. By the way, the drunk is a caricature of Al Lewis - the creator and writer of the Culture Unit Eerie games. How do I know that? Because I had lunch with him on board H&M before years ago. Oh dear, what a name-dropper I am. ■*

*If you've got a title problem that you are too embarrassed to ask a friend about, pop it in a plain envelope and send it to our Mistress of the Night and she'll take a close look at it for you.*







Welcome to where we try to spoil every game by printing the cheats so you can complete it in three hours. And don't forget, thanks to those nice Ocean folk, there's a free bit of Hit Squad software for every tip printed.

## DEATH MASK Alternative

Chris Dunn has written in to remind me that, while we printed the first 17 codes for this game back in the October issue, we've yet to complete the list. So here they are. Cheers Chris!

### LEVEL CODE LOCATION

- 18 04700 Dark Castle
- 19 04800 Training Ground 1
- 20 05000 Training Ground 2
- 21 20000 The Caverns
- 22 45000 Gouquet 2B
- 23 70000 The Asylum
- 24 00000 Dark Castle-Cellar
- 25 04070 Sub Basement
- 26 04000 Alter-Corridor
- 27 04070 Corridor
- 28 04070 Corridor
- 29 04070 Corridor
- 30 04070 Corridor
- 31 04070 Corridor
- 32 04070 Corridor
- 33 04070 Corridor
- 34 04070 Corridor

## FEARS Guildhall Leisure

Carl Macdonald from Leeds writes to say he found a nice little cheat for the

# Snip Tips

cover disk demo we ran a few months back. During the demo, press the HELP key and a little message saying 'protected' will flash up under your energy display. You should now have a (cheater) power save, 50 energy points, and full ammo for all weapons (even the Plasma gun which you start off with, but which out any ammo at all).



A bad way to get tips of codes, energy and a save in Fears.

## BRUTAL SPORTS FOOTBALL Millennium

Only today has written in to remind us of some rather handy cheats for this pretty fine sports game offering. Pretty obviously, this won't work for CD02 users because you don't have a keyboard — but you can't use it anyway, so anything, sorry about that. Here they are.

To play in any league, hit the letter L, followed by a number from one to three (with one being the highest). Now press L followed by a number from one to six to select which match you want to play in (e.g. L1M6 will take you to the last match in the top league). You can also press the following keys in the match for some smashing effects:

- L for Lightning
- I for Invincibility
- W for the Walking Ball
- D for the Shield
- R for the Ram
- T for the Turbine
- F for the Freezing Blocks

## VIROPCOP AGA Renegade

An old chum from my The One days, Alastair's son Mark Forbes, has sent me a whole heap of codes for the excellent Master

by these clever Garghale chaps. You need to register your name as being 'I am Legend' and then you can use the following codes for the following levels. I say that a lot don't I?

### WORLD 1

STYREN  
BYSULP  
FACSTW  
NOVSMP

### WORLD 2

MPYFNE  
QWSTSH  
NOVSMP  
DEBMPJ

### WORLD 3

NOVSMP  
JLMSGO  
QWSTSH  
NOVSMP

## PINBALL FANTASIES 21st Century

If the age of the games people used tips in for is anything to go by, you have to wonder if any new games are being bought any more! Other than in people are just looking for an easy way to grab themselves a software prize. Hmm. Anyway, because this is actually a top game, I'll allow

Bathia Stephen Morris the benefit of the doubt. This time...

Just type in these words for a variety of cool-enhancing secrets:

EARTHQUAKE  
VACUUM CLEANER  
EXTRA BALLS  
ANDREAS  
ULP  
MARIOUS  
FAIRPLAY  
DIGITAL ILLUSIONS  
THE SILENTS  
FREDERICK  
DUD  
BARRY  
CROW

## SENSIBLE WORLD OF SOCCER Renegade

Just in case any of you are still struggling to find good players for your own teams, David Dunn has sent in a list of his suggested top ten players and where to find them — so here they are. Does anyone out there want to challenge this list? Let me know. Usual address please.

- 1 Dennis Bergkamp (Inter Milan)
- 2 Ruud Geul (Stamperia)
- 3 Stan Collymore (Birmingham Forest)
- 4 Bryan Roy (Nottingham Forest)
- 5 Dejan Savicevic (AC Milan)
- 6 Alan Shearer (Blackburn Rovers)
- 7 Andy Cole (Newcastle United)
- 8 Peter Van Vossen (Ajax)
- 9 Thierry Malinche (Marseille)
- 10 Roberto Baggio (Juventus)

Mark Boughton

And that's it folks. Please keep the tips and cheats coming in and can we have some more of the recent ones in there if you wish, eh?



# POWER CD-ROM



## power cd-rom

The Power CD-ROM for the Amiga 500/1000 plugs directly into the Amiga port and provides a direct SCSI and ESDI interface, allowing you to use additional devices to be connected. What's more the Power CD-ROM features a "Hotplug" which allows you to connect and disconnect the CD-ROM and any other additional devices even whilst the Amiga is switched on.

The CD-ROM drive comes with a 500 interface, FFS, manual, audio test, menu test and software which includes Audio CD, CD-DA Emulation, SPD, File Decoder and Photo CD.

### AMIGA 500/1000

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# Get Serious

## Horgan's Organ



Marvellous isn't? Here we are hurtling towards what many had predicted would be a winter of discontent for the Amiga scene, and we're virtually

swamped under with new products and developments. While the fly-by-nights may have prematurely lost faith in our favourite machine, the real innovators are sticking with it to ensure we all have a healthy future with our Amigas.

Phase 5 continue their bid to accelerate every A1200 to at least 50MHz (60000 spec with the fourth revision of their A1230 board).

Meanwhile CD-ROM has taken off as the fastest growing aspect of the Amiga market, proof of which is the amazing response we had from last month's cover CD and this month's abundance of new CD releases. This is backed up by the release of excellent new software like Softwood's Final Calc and others which have grown from modest shareware roots into fully-fledged commercial packages such as DICE C.

Some Amiga magazines have accused others of blind optimism, but we're not in the business of blinkering ourselves or our readers. If this whole thing really was going down the pan, do you think I'd still be here writing this? We have a business to run too!

Let's get on and enjoy the Amiga and its unique community of users. That's something the other platforms will never have nor understand. Be proud of it, I said!

Tony Horgan

You know where to come for the best reviews of all the latest hardware and software, tested and rated as always by CU Amiga's experts.

- **Final Calc** ..... 68  
Spreadsheets used to be boring. Not any more! Softwood's new number cruncher will amaze you with its super slick graphing functions tool!
- **Blizzard 1230 Mk IV** ..... 70  
An accelerator RAM board continues to get faster and cheaper. Phase 5's 486SX-based 1230 has now reached its fourth revision and it's looking good!
- **Demo Maniac** ..... 74  
Years in the making, Demo Maniac finally gets a release. Could this be your entry pass into the next big demo party?
- **Info Nexus 2** ..... 78  
A brave challenger to the all-conquering Directory Opus, Info Nexus 2 now comes with Data Nexus free.
- **DICE C** ..... 79  
Programming: everyone's doing it! The former shareware C compiler DICE C has grown into a commercial package, but can it mix it with the big boys?
- **Amiga M14385 Monitor** ..... 83  
Amiga Technologies have released their official multi-eye Amiga monitor, complete with stereo speakers. We put you in the picture.
- **CD-ROM Round Up** ..... 85  
CD-ROM Round Up is extended to three pages this month since you enjoyed last month's feature and cover CD so much.
- **PD Scene** ..... 89  
More drives, games and weird stuff from the wonderful world of the public domain.
- **PD Utilities** ..... 95  
All the best gems from the more serious side of the public domain are described in PD Utilities.



Dance Dance (2)



CD-ROM Round Up



Blizzard 1230 Mk IV



# FinalCalc

■ Price: \$99.99 ■ Developer: Softwood ■ Supplier: Softwood ☎ 01773 836781

Have SoftWood got another winner on their hands?

Maybe but with a few reservations.

**W**hile it's all known that the Amiga is one of the best computers for video and graphics work, few other systems have so many different applications offering such flexibility and power for digital video work. Sadly, however, the Amiga has been seen by some as not being able to compete when it comes to the professional office market because of the lack of powerful sophisticated spreadsheets, databases and word processors. People wishing to use these types of applications tend to use PCs or Macs and once they've started using them for these purposes the danger is that the Amiga will be



A FinalCalc can convert data into tables, or in some cases convert it to tables, which is useful for calculations.

pushed aside completely.

In the last year or so though, a slow but steady stream of heavy-weight business programs have been released. Digit's *ProWork* and Softwood's *FinalWriter* covering the WIP market while HiSoft's *Rejo 2* covers the database front. But what of spreadsheets? You could view DJ Amiga's *ProCalc* cover disk around, but by comparison to PC and Mac spreadsheets of late it looks a bit long in the tooth. *FinalCalc* from Softwood has finally arrived though, with the promise of super league power, so it is as good as we've been led to believe?

## Messy

On loading the program, after installing it is hard disk, a fairly standard looking spreadsheet appears. Taking a quick look around the menus reveals a frightening number of choices and possible commands. After the smugly menu of *FinalWriter* this came as quite a shock! And the look bar below the menus doesn't help much either.

Only the basic editing and text attributes are set from the look bar; you won't find any of the options or flexibility frequently found in other applications. Grid bars or even spreadsheets, no insert/delete/insert, common formulae, etc.

There's also no way to repetition it or taller it. The user interface is certainly way behind other Amiga spreadsheets we've seen in terms of simplicity - definitely a missed opportunity!

Once you get past the initial shock of the basic front end and start exploring things improve considerably and there are even several touches that make the user interface better. But there are several features crying out for some of the user interface tricks found in SoftWood's latest version of *FinalWriter*, but more of this in a minute.

## 3D Graphs

I started off this review talking about the Amiga's lead in graphics and 3D image markets, so it shouldn't really come as a surprise that *FinalCalc* has comprehensive 3D graphics capabilities. What's surprising however is just how powerful these capabilities are and how useful they are in a business environment.

Loading of its features first, *FinalCalc* shows its 3D graphs as true 3D objects. This means that whereas *ProCalc* simply showed a graph with a third dimension drawn for effect, *FinalCalc* creates a 3D world in which the graph exists, and in which you can move around to see the graph from different view points. The viewing angle can change in all three directions, and it's even possible to change the scale of each axis!

Perhaps the only thing missing from its 3D capabilities is the option to export the graph as 3D data so it could be rendered in *LightWave* or *Imaging*. Maybe I'm daydreaming, but I can't help thinking how impressive it would be to see a graph with feature mapped colours, and custom lighting effects - other presentation modes wouldn't stand a chance!



A FinalCalc provides 3D that previous software, showing correctly and an interface is a must to use it.

One of the first things you notice is that the Project menu doesn't have the usual Open, Close, Save after under the first menu. Instead you have the option to open Projects, each project containing one or more sheets. Although individual sheets can be opened, in use I found its Projects approach of storing several related documents together under one name more sensible and easier to work with. This is obviously very useful as it means related sheets can be kept together, stored as one file. For example, a project for household finance might contain

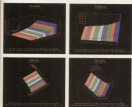




## Animation in Action!

OneCell's animation feature is probably one of its most talked about features. As well as being able to move around a 3D graph the user can change the way the data is presented. As the data in the spreadsheet that the graph is drawn from changes so too does the graph - nothing more than that. What is new is that the modifications to the graph over time can be recorded as an animation. You could, for instance, watch as a graph showed turnover and profit changes for a company happening during the course of a year, watching columns rise and fall. These changes can be combined with simultaneous viewing angle changes to add impact or aid visibility. If during the animation for example one column of a graph dropped behind another one the camera angle could change to bring above or around the graph to keep the column in sight - clever stuff!

The animation is stored as a series of independently numbered PP files not a true anim file. Although the manual shows how one can be created using the PP program, *Animator's* joins the otherwise powerful nature of the program surely it couldn't have been too much to include an option to have this done automatically!



■ **Visuals** Are the most impressive graphics functions of any design spreadsheet. All 10 graphics make it possible to present the numbers with a lot more pizzazz.



It is important to understand that the proposed new model is not a replacement for the existing model, but a complementary one. The existing model is still valid and will continue to be used for the majority of cases. The new model is only for cases where the existing model is not applicable.

two sheets are for regular bill calculations and one covering loan repayments. I note, however, I'm surprised to find that *FlexiCalc* doesn't use the tab-access approach, pioneered by *SoftWood* in *FlexiWriter*, to make jumping between sheets easy. Why not have a row of tabs along the bottom of the screen for each sheet? Instead you need to go to a menu, click on View, and select the sheet required. No fault.

## Classic stuff

When it comes to producing spreadsheets the program supports a very strong collection of presentation aids, functionality studies and sheet navigation tools. When making a cell or cells around using *Pointer* the references in formulas can be modified for you automatically while a single cell can be copied to multiple cells. There's also options to hide, lock and protect cells. All classic spreadsheet stuff.

The layout looks good, too. Cell widths and heights can be changed, as can the colors, font, color and alignment (bold, italic and otherwise) they aren't very intuitive, I'm still trying to find out how to do the same basic things - setting a cell background color for example. There's also a simple style facility that allows you to define a consistent format for cells that you can then apply to other cells later on. *small: Almost with*

When entering function fields, automatically provide help through the parameters and arguments of the function command.

these, you can also add borders to cells. *FinalCalc* also allows you to clean up the borders of cells and remove duplicated lines. Other programs duplicate border lines - if you've got two cells next to each other, both with their own borders - giving thicker lines than wanted.

While entering the spreadsheet data there are several further tricks in the *FinalCut* magic hot. The first is infinite undo and redo, so you can undo every action ever made on a spreadsheet right back to when it was empty! The next trick and more useful for beginners is comprehensive on-line aids, *macro function formulas* is documented with both quick one line descriptions and more detailed information. Then there's debugging tools to help find problems, like the find breaking features which finds the closing bracket for an open on in a cell – invaluable for complex cell compositions.

If you print spreadsheets out you'll love the program. There's 29 pages on printing alone in the manual, among them many talents and auto-formatting of the spreadsheet to fit it on a set number of pages, a huge variety of variables for headers and footers (different data formats, page numbers, total number of pages etc.), and the option to map the programs screen format fonts to outline fonts for maximum quality when printing. The program supports *Personal Type 1* and 3, *MacAldat* and *Softworks* own outline font formats. If you're looking for the best output for your spreadsheet data you won't find better.

There's more to this program than I could possibly cover here. It's calculation facilities are very impressive. Not only is it fast, but it handles circular references for you automatically. It understands infinity references (think about trying to explain what infinity is to a system that only understands solid, real, numbers, you could take forever) and has the capability to work backwards through formulas so it can work out correct starting values given a desired result!

**Drawbacks**

I liked *FileMaker* and found it had most of the features I wanted, but not all. Given that *FileMaker* is so late to the Amiga the chances are that most prospective spreadsheet users will already have one: *Microsoft Excel* or *LotusCalc*. So why doesn't *FileMaker* support the last two file formats? I suspect the

market for this program will come from users of these existing spreadsheets upgrading, yet with the exception of Microsoft Softwood have done little to help us do so. Yes, there is an option to read Lotus 1-2-3 files so we could save data out from ProCalc and in Lotus format and then import back in but we're using an Arisys or a PC here?

Then there's the manual. As Arpa mentions, it looks amazing, vibrant, basic, glossy, covers everything – it must cost half-a-crown or a fortune per unit! But as the old expression goes, never judge a book by its cover. While the layout, English, and quality are great, I found the content and structure lacking. There's no step-by-step tutorial, although there are basic Coopers's chapters showing how to get going. There's no breakdown or listing of the various menus of the program's already ready-made, and more serious the function lists are subordinated into topic lists. In other words, system and user rather than just software – it's not even a functional menu as you don't know a function name unless you're in it.

Its user interface is also lacking and could have been much, much better and definitely less the program down, it's still a good spreadsheet, fast and responsive with some genuinely innovative and useful features and is without doubt the best spreadsheet currently available for the Amiga.

But is the final conclusion an Arniqa application that can't directly talk to other similar Arniqa applications and a user interface not up-to current standards (standards not ironically by Softfloat amongst others) can't and won't get CU Arniqa support. ■

1000

FINANCIAL

[illegible]



# Blizzard 1230 IV

■ Price: £179.95 (plus RAM) ■ Developer: Phase 5 ■ Supplier: Gordon Harwoods ☎ 01773 836741



If this Blizzard card was a film character it would be James Bond. It's that smooth.

**P**lease & know a thing or two about accelerators, having been in the game for a long time. The famous Blizzard range has had various incarnations based around the 68020 and 68030 CPU. This is the fourth generation of the Blizzard 1230 and it's accordingly known as the Blizzard 1230 Mark IV.

## High quality

Based on a 68030 68030 compatible with memory management unit (MMU), this is as fast as it gets before you enter the territory of the expensive first generation 68030 accelerators that are now appearing. Blizzard products have always been high quality units often outpacing the competition but at a higher price. But now the Mark IV has come significantly under the £200 barrier it's more attractive than ever.

## Cheaper RAM

All 2300 (basic) accelerators are not all made equal. The Blizzard Mark IV is exceptionally well constructed, sporting a single Simulink socket that allows each double-sided 72 pins Simulink to be used. Unlike the Mark II, the IV permits the use of cheaper 7665 RAM. A jumper connection on

the board is used to select 60 or 7665 RAM speed - a very welcome addition.

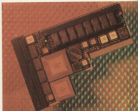
## Faster OS?

Interestingly, there's another jumper next to the RAM speed one. This selects the RAMPROG function. With this jumper closed, the Amiga's ROM is copied into the 32-bit fast RAM on the Blizzard board, which accelerates the operating system functions. This feature could be activated using the CPU command supplied with Workbench but by using the jumper switch you can enable it permanently if the loss of 512K of your fast RAM isn't a problem.

Another new feature of the Mark II is that if, while booting, the '2' key is held down, the unit will deactivate entirely. The extra memory acceleration and even the SCSI adapter if present, will all vanish. That's extremely handy for running games that might object to extra RAM or more commonly the accelerator.

## 32-bit DMA

Like the Mark II, the IV has a 32-bit Direct Memory Access (DMA) expansion connector to allow a SCSI interface to be added. This would give a very fast SCSI inter-



face, linking the PDMCA slot feed for other peripherals. The direct memory access would also require much less CPU time for data transfer than a PDMCA SCSI interface. Interestingly, the add-on module also sports an extra Simulink socket which can accept up to 128MB SIMULINK. It's an excellent idea but if SCSI is all that's required, the £50 expense for this feature is a little too hefty.

## To the test

If you're laying out £180 for an accelerator, you want to go faster. How well does it perform? Without printing reams of benchmarks, the results could be summed up by saying that, the Blizzard Mark IV is the fastest 68030 based accelerator that we have encountered. In particular the memory speed is spectacular, faster even than the Falcon 68040 accelerator and only being beaten by the A4000 Coprocessor units (also built by Phase 5).

## Acceleration

If you've never seen an accelerated Amiga, you're really missing something. Hard drives keep ahead speed-wise. Time consuming tasks take only a fraction of the time. Real-time data compression software can gain extra hard drive space without you even

noticing. With extra memory and speed, you can finally run several applications simultaneously with little performance loss. Before too long you'll take this massive leap in productivity for granted.

We currently rate a Blizzard Mark II high in the CPU Amiga category and it's given faultless performance to date. The Mark IV providing the same quality coupled with these extra features at a reduced cost can only be a good thing as far as we're concerned. The Blizzard 1230 Mk IV is definitely the top 68030 accelerator for your A1200. ■

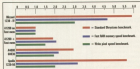
Max Bottomley

## BLIZZARD 1230 MARK IV

System requirements	
Amiga 1200 with the master hard disk	
RAM	
1280K or 2560K	95%
Amiga 1200 with the master hard disk & 1280K	
Performance	95%
Memory speed when you're doing what you like	
Value for money	95%
The best thing in the category. Standard requires extra RAM.	

**Verdict**  
The Best 68030 accelerator for the Amiga A1200.

**93%**





















# Seeing is believing!

[illegible][illegible]

**GROUP OF COMPANIES** | **GROUP OF COMPANIES** | **GROUP OF COMPANIES**

The diagram illustrates a highly complex corporate structure. At the top, the text "GROUP OF COMPANIES" is repeated three times. Below this, the chart branches into a multitude of smaller entities, likely representing different divisions, departments, or subsidiaries. The layout is dense, with many lines and boxes, suggesting a large number of organizational units. The text within the boxes is too small to be legible, but the overall shape of the chart indicates a multi-tiered hierarchy.



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# Info Nexus 2

■ Price: £29.95 ■ Developer/Supplier: Optonica © 01455 658282

**Info Nexus 2 steps forward as a contender to Directory Opus. CU Amiga Magazine wonders whether it might have been better where it was.**

**A** file manager can turn any computer into a more productive machine. Acting on your file base with a graphic user interface is much quicker than the equivalent operations performed in the Shell or via Workbench. This is a fact highlighted by the enormous success of CU Amiga Magazine's Directory Opus 2 cover disk earlier this year.

It is agreed with still scepticism that Info Nexus 2 comes to this. Whether it is a worthy contender is an issue for debate.

## Pop and roll

Although based on the DOpus 4 style fixed font bit display, its native GUI interface is foreign. It only becomes readable after I get rid of the text shadowing and altered the colour scheme.

Like its predecessor, Info Nexus 2 uses a change Menu-like system. Pressing the right mouse button anywhere will cause the screen brightness to fade down and a menu bar to appear in that location. Unfortunately there's an option to lose the silly screen dimming but even still this system, described as "Pop and Roll", is fairly useless as the menu bar

limited selections anyway. Info Nexus does not compare favourably to DOpus 4. There's a ridiculous lack of configuration options. The buttons are fixed and it's not even possible to create a drive button. Instead you have to click on a 'Drives' icon and then choose from a non-reusable requester containing your entire selection of drives and assigns. Another another minus point is the fact that none of the file requesters are resizable - a nasty side effect of not writing the GUI wheel.

## Limitations

File types are severely limited. The defaults are mostly based on matching post files of the filenames (.IFF, .TXT etc) rather than the binary data. There is, however, a couple of potentially innovative features, such as a preview thumbnail display of a directory full of images. This presents a screen full of boxes with tiny representations of all your pictures in it. Nice idea but it doesn't work on anything but IFF files for me. When I tried it with JPEGs all I got was a load of garbage even with a working Dataspeed installed. Even with IFF handled by Dataspeed which is a little pointless for a package professing to work under the Dataspeedless OS 1.3, you'll only be able to view IFF pictures these machines.

There are a few positive points to Info Nexus 2. In 'Dynamic Typing' mode, small icons representing every defined file type are displayed to the left of the filenames. Info Nexus also has some neat functions for performing batch renames with specified post-processor. Most of the unique features of Info Nexus 2 could be replicated



▲ In the first, selection lists files and other file manager. However, I can't even browse against the file browser. The 'pop and roll' menu can be seen here and the first window below the menu bar.

with DOpus 4 and Affix, but the inadequate Affix port on Info Nexus 2 means that you couldn't replicate all of the unique features of DOpus 4. Some example Affix scripts would have helped but there are none.

## Odd approach

Optonica's entire approach to implementing a file manager seems odd to me given a quote from their Info Nexus 2 addendum to the previous manual: "What about multiple windows and multiple threads? Whilst other file manager producers may feel that allowing the user to do many things at once with files is a good thing, in reality this is a prime example of superfluous gizmology winning over intuitive program design." Do Optonica really hope to convince us that we don't need multitasking? If this is intuitive program design, I'll have a double helping of superfluous gizmo please.

## Sweetener

As an extra, Optonica have included Gaminexus with the package. This is a simple but functional 'fast file' database. If the basic GUI

isn't too much of a problem then it could be useful. Its ability to handle images, sounds and even CDXL animation is a definite plus but again Optonica state, "... you will not find the usual superfluous bells and whistles ...". They seem to be under the impression that the numerous things they haven't implemented (that are commonplace in other packages) are simply not needed. I strongly disagree. Clear and buy some shareware instead. ■

Mark Brittain

## INFO NEXUS 2

**SYSTEM REQUIREMENTS:**  
1MB Memory, Model 500 1.2 or higher  
OS 1.3 and fast disk recommended

**SIZE OF DISK:** 95%  
1MB Memory, Model 500 1.2 or higher  
OS 1.3 and fast disk recommended

**PERFORMANCE:** 95%  
1MB Memory, Model 500 1.2 or higher  
OS 1.3 and fast disk recommended

**VALUE FOR MONEY:** 95%  
1MB Memory, Model 500 1.2 or higher  
OS 1.3 and fast disk recommended

**VERDICT:**  
Some file managers have more to offer.

**57%**



▲ Using the same basic GUI interface as Dataspeed, the limited features could be added.





THESE RESULTS ARE IN ACCORD WITH THE  
FINDINGS OF OTHER STUDIES THAT  
INDICATE THAT THE USE OF  
COMPUTERS IN THE CLASSROOM  
CAN IMPROVE STUDENT  
ACHIEVEMENT AND ATTITUDE.



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WATSON, G. (1994) 1000



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Country	Year	Population (millions)	Urban population (millions)	Urban population (%)
Algeria	1990	10.0	4.0	40.0
Algeria	2000	11.0	5.0	45.5
Algeria	2010	12.0	6.0	50.0
Algeria	2020	13.0	7.0	53.8
Algeria	2030	14.0	8.0	57.1
Algeria	2040	15.0	9.0	60.0
Algeria	2050	16.0	10.0	62.5
Algeria	2060	17.0	11.0	64.7
Algeria	2070	18.0	12.0	66.7
Algeria	2080	19.0	13.0	68.4
Algeria	2090	20.0	14.0	70.0
Algeria	2100	21.0	15.0	71.4
Algeria	2110	22.0	16.0	72.7
Algeria	2120	23.0	17.0	73.9
Algeria	2130	24.0	18.0	75.0
Algeria	2140	25.0	19.0	76.0
Algeria	2150	26.0	20.0	76.9
Algeria	2160	27.0	21.0	77.8
Algeria	2170	28.0	22.0	78.6
Algeria	2180	29.0	23.0	79.3
Algeria	2190	30.0	24.0	80.0
Algeria	2200	31.0	25.0	80.6
Algeria	2210	32.0	26.0	81.3
Algeria	2220	33.0	27.0	81.8
Algeria	2230	34.0	28.0	82.4
Algeria	2240	35.0	29.0	82.9
Algeria	2250	36.0	30.0	83.3
Algeria	2260	37.0	31.0	83.8
Algeria	2270	38.0	32.0	84.2
Algeria	2280	39.0	33.0	84.6
Algeria	2290	40.0	34.0	85.0
Algeria	2300	41.0	35.0	85.4
Algeria	2310	42.0	36.0	85.7
Algeria	2320	43.0	37.0	86.0
Algeria	2330	44.0	38.0	86.4
Algeria	2340	45.0	39.0	86.7
Algeria	2350	46.0	40.0	87.0
Algeria	2360	47.0	41.0	87.2
Algeria	2370	48.0	42.0	87.5
Algeria	2380	49.0	43.0	87.8
Algeria	2390	50.0	44.0	88.0
Algeria	2400	51.0	45.0	88.2
Algeria	2410	52.0	46.0	88.5
Algeria	2420	53.0	47.0	88.7
Algeria	2430	54.0	48.0	88.9
Algeria	2440	55.0	49.0	89.1
Algeria	2450	56.0	50.0	89.3
Algeria	2460	57.0	51.0	89.5
Algeria	2470	58.0	52.0	89.7
Algeria	2480	59.0	53.0	89.8
Algeria	2490	60.0	54.0	90.0
Algeria	2500	61.0	55.0	90.2
Algeria	2510	62.0	56.0	90.3
Algeria	2520	63.0	57.0	90.5
Algeria	2530	64.0	58.0	90.6
Algeria	2540	65.0	59.0	90.8
Algeria	2550	66.0	60.0	90.9
Algeria	2560	67.0	61.0	91.0
Algeria	2570	68.0	62.0	91.2
Algeria	2580	69.0	63.0	91.3
Algeria	2590	70.0	64.0	91.4
Algeria	2600	71.0	65.0	91.6
Algeria	2610	72.0	66.0	91.7
Algeria	2620	73.0	67.0	91.9
Algeria	2630	74.0	68.0	92.0
Algeria	2640	75.0	69.0	92.1
Algeria	2650	76.0	70.0	92.1
Algeria	2660	77.0	71.0	92.2
Algeria	2670	78.0	72.0	92.3
Algeria	2680	79.0	73.0	92.4
Algeria	2690	80.0	74.0	92.5
Algeria	2700	81.0	75.0	92.6









# Dice 3

■ Price: £99 ■ Supplier: Fourth Level Developments © 0117 985 4456

A shareware C compiler turns commercial. Is it setting a new standard for the Amiga or should Fourth Level throw again?

**I**t's always good to see a shareware program evolve into a commercial product. Although on one hand it can hurt the pocket, it does mean that there is usually plenty of user support and prompt releases. It also means that there has been a long period of real-world testing. Couple these points with the fact that SAS2source C compiler is no longer being developed and DICE looks set to become the new Amiga standard.

As with any C compiler, you can't expect to take it out of the box and start writing astounding programs, straight away. If you have never used C before you will need to read the manual from cover to cover before you start. The DICE manual won't teach C from beginner to advanced level, but it will help you a great deal by explaining the basics and recommending further reading. There is no doubt that you will need a good reference book and you will also need to obtain the official Amiga documentation (the 'White').

However the effort is well worth it as C is an amazing language. It manages to provide near assembler-level control over hardware, whilst at the same time providing a modular approach which can be used for anything

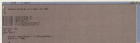
from arcade games to professional databases. If you want to learn how to write program then C is the way to go.

## Roll the DICE

From the outset DICE looks promising. The manual is thick, all the files you need to start up are included on the five floppy disks provided and it claims to work on an AS50 with two floppy drives right up to an A4000 with hard disks. Sadly this turns out to be false, as the floppy-only installation routine is broken in this release, so you will need a hard drive to use DICE.

Rather than containing only a compiler, DICE is a complete suite of programs. As your programming projects grow it becomes harder and harder to keep track of your code, and that's where the Vmake utility and Resource Control System (RCS) come in. Vmake provides a graphical 'front end' for the compiler. It's possible to compile and run without having to visit the Shell CLI at all, which is good news for those who are allergic to remembering long strings of options.

The RCS system keeps track of all the different files which make up your program and ensures that different versions don't get mixed up or lost. When you consider that



▲ With a choice of utility files the Vmake GUI shows how, in the Windows-based GUI, editing your source code is relatively straightforward. Other editors are supported by means of filters and device file drivers.

a large program can have twenty or thirty associated source code files, you can see why it is such a good idea.

As well as the requisite Linker and Assembler which all compilers need, other utilities are provided for searching through files, removing comments, updating time stamps, and handling other mundane tasks. You even get a choice of editors: the simple DICE or the Microsoft derivative AME.

## Amiga friendly

Amiga is fully supported by Vmake, which means you can customise your programming environment for any particularly tricky jobs you have. In fact, as the source code is provided for many of the utilities, you can actually rewrite the entire system if you need to.

The manual gives some very useful example code for integrating an Amiga port into your own programs. In fact this is made a lot easier because one of the Amiga-specific features built into DICE is automatic Amiga support a startlingly good idea.

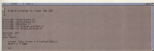
Unfortunately all is not double sizes with DICE. I must have been spoilt to using SAS2C for so long, but DICE has a less than professional feel about it. There are little indications (the documentation for some features, such as the Debugger, is on disk rather than printed in the manual) and there are larger ones (the code profiler doesn't seem to work, the automatic installation didn't work, the promised

integration of DICE with existing test editors such as Cygnus isn't in sight).

From a beginner's point of view the compiler suite looks particularly unfriendly despite, even if you do everything right, even if you do the source code file (SAS2C automatically knows what you meant). Problems like these should definitely have been ironed out well before version three, and a total lack of response from the supplier UK E-Mail support address doesn't help either.

Overall I was impressed by the Amiga-specific features, but feel that more work has to be done before DICE reaches its true potential. You can work around the short comings if you have faith, there is nothing truly major at fault, but you can't help feel that adequate time in the testing department is not in evidence. ■

John Kennedy



▲ Debug and test as fast as program files are built. The DICE debugger takes the fun

DICE 3	
System requirements: Any Amiga with 1MB and hard disk	
Price	£99
100% Amiga and Amiga+ compatible 100% Amiga and Amiga+ compatible 100% Amiga and Amiga+ compatible	100%
Performance works well, but not as well as some other compilers	75%
Value for money Depends upon the price you pay, but good value for money	80%
Overall Looking in some ways but available and supported	78%







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# Amiga Technologies M1438S monitor

■ Price: £299 ■ Developer: Microvitec ■ Supplier: Amiga Technologies ☎ 01628 770034

**At last the Amiga has an official multisync monitor. So just how good is it with productivity modes?**

**A**miga Technologies make no secret of the fact that their M1438S monitor is essentially the Microvitec 1438. This monitor that has already proved itself a popular and cost-effective monitor for the Amiga market and has been on sale through outlets such as Sainsbury for some time now.

The M1438S is a multisync, so it can synchronise itself to display a variety of screen modes that use different scan rates. This

means it can display PAL (50Hz) screen modes as well as Double PAL/Productivity (210Hz) screen modes. Hence this one monitor is theoretically suitable for games and serious applications alike.

Normal PAL modes, which are used with the majority of games, can be used for serious applications too (DUPAL/Productivity is required for a high resolution picture if you want to avoid those dreaded flickery interlace modes). In fact M1438S productivity modes in the 310Hz band

can be used with the original Microvitec 1438 or many other VGA monitors too, using an Amiga 23-pin to PC 15-pin adapter.

## Dual-purpose

Since the M1438S displays both modes for only 50% more than the cost of a PAL, only monitor (such as the Commodore 1084), it seems to represent good value for money. The only really new feature in the Amiga Technologies version, apart from a proper 23-pin RGB input, is the addition of stereo

speakers. Unfortunately, the sound quality from these speakers left a lot to be desired, especially where bass response is concerned. They were fine for some games and for the occasional warning beep but pretty useless for serious audio applications.

## PC modes?

The first step where the M1438S falls down is in the picture displayed in the 310Hz modes. Large borders are present on either side of the active screen and with the provision of a horizontal size control, it's not possible to reduce them. The brightness and contrast is also too low for a good quality picture. On the other hand the M1438S displays VGA modes perfectly well from add-on graphics boards like my GNP Spectrum. This would seem to indicate that the monitor was designed for screen modes coming from a PC rather than an Amiga. If this weakness and the sound quality were addressed then the M1438S would be absolutely perfect. As it is, it's still good value, but if multisync modes and sound quality are a priority, you should look elsewhere. ■

**Mark Gattis**



## M1438S MONITOR

15" colour, multisync  
RGB, Resolution 2 to 1024x 80  
multisync (20%)

cost per inch	65%
multisync picture versus RGB and productivity modes	
picture quality	20%
picture quality versus RGB and productivity modes	
picture for games	85%
good for only 10% more than the cost of a PAL only monitor	

**Overall**  
Good value but  
sound and for  
screen modes  
could be better

**80%**









Check out the latest Amiga CD-ROMs in our new expanded reviews section. Tony Horgan spins the discs.



# CD-ROM Round up

## The Colour Library Vol 1

If your appetite for all things pictorial is still unquenched, maybe The Colour Library is the idea for you. A rather nice picture viewer is included on the CD which lets you view all of the images without having to use something like Viewfile, which could have you sitting around waiting for directory lists on slower Amigas. The way there's to eating - just view, on the picture and up it comes. Image Desk, Image Studio and Fast View are also included.

The images themselves vary greatly in terms of content and quality. It seems that a simple hunting technique was used to round up as many pictures as possible from the public domain. Quality control was apparently not a high priority. That's not to say that all of the images are crap. There are lots of good images here but there's also a large contingent of lousy low-resolution digitised stuff. If you require a wide variety of illustrations for use in DTP applications then The Colour Library should serve you well, so long as you don't expect stacks of high quality high resolution scans.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 07702 486933. Price: £3.99 plus 75p P+H.



## C64 Sensations



Unlike the highly popular Speedy Sensations CDs, C64 Sensations is not a collection of old C64 games. It was so looking forward to playing some of these old classic Summer Games 2, Racing Destruction

Set, International Soccer and hundreds of others, but I should have read the back of the CD first.

What we have is a compilation of music, demos and pictures from the C64. Some of the music is stored as SID files, and comes with the SIDPlayer utility to play them back on your Amiga. (Due to an all too familiar mix-up, the installer is directed to nonexistent directories, and so it doesn't work. However, much hunting around will reveal the required library sitting in a deep-rooted directory somewhere on the CD. Copying this to the Libs partition on your hard drive gets it all up and running. Another selection of tunes are stored ready to play from the CD.)

Depending on your outlook, C64 music is either a classic, by an acquired taste or a nuisance. If you're not sure what to expect, imagine the sound of a low trapped inside a Nintendo organ.

Then there are the pictures. These are generally chunky loading screens taken from C64 games and do a good job of reminding us how nice high resolution Amiga graphics look. I'm not quite sure what the attraction is here because let's face it, they are stunningly unimpressive by today's standards.

Finally there are demos. These are included as a rather unfriendly batch of LHA archives. These need to be extracted and then loaded into the C64 emulator Prodos. Anyone expecting a C64 equivalent of the Speedy Sensations disc will be very disappointed.

Available from: Epic Marketing, Victoria Centre, 138 Victoria Road, Walsden, Wiltshire SN1 3BU. Price: £19.99 plus £1 P+H.

40%



## Aminet 8

If by any chance of justice you missed out on our CD issue last month, you will also have missed our free cover-mounted version of an Aminet 7 CD. Those who didn't miss but will now be familiar with what has become the world's most comprehensive collection of Amiga PD and shareware. Most of the data is archived, generally with LHA but occasionally with DMS where appropriate. With virtually nothing more easily accessible from the CD this can be a little tedious, but it does mean you get over a gazillion of data in total. The AmigaGuide indexes are of fairly automated unhelpfulness, so that's no problem.

As well as the usual categories of business, development, games, music, comics, utilities, disk tools, graphics, pictures, music, demos, text and hardware projects, Aminet 8 focuses on music modules with a massive 3,000 of these included. Aminet 8 contains over 600MB of raw software along with the best and most useful stuff from previous releases. This cannot be beaten. Definitely an essential purchase.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466833. Price: £12.99 plus 75p P+R.

92%



## The Fifth Dimension

The Fifth Dimension is the 16th CD compiler from 17 Bit Software's extensive library of PD.

All of the software is archived in DMS form, which means everything has to be expanded onto floppy disks before you can use it. This is the second way to transfer a disk-based library to CD and is fine for demos that are designed to run straight from floppy. However it's not ideal for serious applications and utilities that would be better unexpanded straight to a hard drive.

The selection of software on this disc is excellent, taking in the full range of Amiga PD, from games and demos to utilities and applications, along with all the other oddities that find their way into the public domain. Every disk is included from number 3210 which just happens to be my own Some Justice 94 demo to 3873.

Most of this is top grade stuff. Highly recommended.

Available from: 17 Bit Software, 1st Floor Offices, 218 Market Street, Wakefield, West Yorkshire. Tel: 01924 388 582. Price: £19.99 plus 75p P+R.

88%



## Fresh Fish X

Fresh Fish (real name) is the original Amiga PD compiler. He released his first 'Fish Disk' in 1985 and was one of the catalysts in the growth of the Amiga PD scene. Fresh Fish X is the tenth edition of the CD series, and contains disk numbers 1900 to 1100 in LHA archive form. All new additions to the Fish library since volume 9 are also included ready to run from the CD, plus a selection of others ready to run software listed in a screen called 'useful'.

You won't find any demo discs here - the emphasis is on the more serious side of things, although there are a few games. Like the Amineer CDs, most of the new files are split into categories such as business, comics, music, pictures, graphics, utilities and so on. While it doesn't seem to be quite as comprehensive a collection as the Amineer discs, it's still packed with lots of useful tools and data.



FRESH FISH

80%

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466833. Price: £9.99 plus 75p P+R.

## The Global Amiga Experience



Featuring full versions of images 2.5, Scale 1.12, File Pro 1.0, Game Sort 4.0, JCCopy and Global 1.1, The Global Amiga Experience offers pretty good value for money.

The main aim of the disc is to give you the chance to try out commercial applications in PD format, so even if none of the above programs tickle your fancy there are stacks of demos of others to mess around with. The categories include business software, comics, graphics, music, development, learning software, text/CDP utilities, tools, games and miscellanea. Although you'll inevitably make a bit of German in some of the programs, most of them are in English. Well worth having.

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD. Tel: 01702 466833. Price: £25.99 plus 75p P+R.

89%

## Super Autos 94/95

Super Autos 94/95 contains 110 images, all of which are digitized photos taken from a car show. Each image is supplied as a GIF, Windows PC, PCT and TIFF file. There's also a directory that contains files purporting to be 3D's but related to tool on any of our graphics software or viewer utilities. The pictures have been digitized at high

res interlaced resolution and are very clean. If your 'PictureOnCars' directions on your hard drive needs retooling up, here's the solution.



Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex, SS1 2YD. Tel: 01702 466833. Price: £4.99 plus 75p P+R.

70%





## AGA Experience



With AGA Experience, SoftICE 95 PD have put together a very accessible complete run of fun PD. Although there are some utilities and tools, the emphasis is on demos, simulations and games. Quite a few of the items can be run straight from the CD, although as it

usually do, this does cause occasional crashing when you've haven't been set properly and so on. It's geared towards AGA Amiga, and although you can access the files from any CD-equipped Amiga, most of the data is VGA-only.

The most impressive element of the disc is the vast number of top spec demos, many of which can be run from the CD, although unfortunately they won't all get back to your Workbench when you're finished. Games are also here in abundance and there's a selection of very high quality digitised images.

Far from a cheap showpiece compilation, the AGA Experience is one of the best ways of catching up on all the latest net so serious Amiga PD. This is well worth taking a look at if you want a good cross section of PD.

**Available from:** SoftICE95,  
40 Russell Terrace, Manchester,  
Norfolk NR11 6LJ. Tel: 01263 732466.  
Price: £19.99 incl P+P

**90%**

## Phase 1

Nothing to do with the 17 bit Phase 2 series of CD-ROMs, this Phase 1 is filled mainly with clip art, image and font files for use in DTP, graphics and video work. The graphics are split into descriptive directories (cars, animals, fantasy etc.). Each category has its pictures compressed onto one or two screens of thumbnail previews, together with filenames for all the images, so locating the right picture is no trouble.

While some of the colour clip art is very familiar and has previously appeared on similar CDs, the general standard is very high. The clip art is divided into colour, mono and EPS formats, while the images are all present in 16, 256 and 4096 HMM colours. DTP artists will enjoy the large number of fonts available in Compugraphic, ProFont, Type 1 and BF formats.

A handy bag of utilities are on hand to help you out of miscellaneuous light spots. Demo versions of Typesmith 2.5 and Appoliteure 2 are in attendance, along with update patches for Appoliteure 2 & 3, QuattroView and Typesmith 2.6. In all, a very competent clip art and font collection.

**Available from:** BM Compugraphic,  
5 Binks Road, Clacton, Essex CO15  
1JL. Tel: 01206 421 389. Price: £24.99  
plus £1 P+P.

**86%**



## Zero G Datafile 1

Zero G Datafile 1 is the CD-ROM version of the audio sample CD of the same name. You may remember it was this CD that had a big hand in starting the whole data sample CD market a few years ago. We reviewed the original audio disc and rated it highly. This has all the samples from that disc in 16 or WAV format, sampled at 44.1kHz.

Strictly speaking this isn't an Amiga CD-ROM, but it can be good deals enough directly with Datafile 2.5, or if you use another sequencer, the samples can be converted using one of a number of PD utilities.

While the audio sample CD market has exploded, slow progress is being made when it comes to CD-ROM equivalents which is surprising, considering the advances in desktop music in recent years. So rather than getting the latest releases as on CD-ROM, we have Datafile 1. While this was a great CD when it was released, it has since been sampled to death, and what were once fresh sounds are now old hat as testament to its success at least.

If you are converting these samples to 5 bit MP3, it's worth buying the volume 2.5's or so before downgrading, as many of them are fairly quiet (which partly offsets the advantage of taking the samples from 16 bit originals). There is, it still beats most other music CD-ROMs by a mile.

While this disc isn't such an attractive proposition, it's worth looking out for other CD-ROM (and audio releases from Time and Space). Give them a call and they'll send you a free catalogue.

**Available from:**  
Time and Space,  
PO Box 364, Northampton,  
North NP4 3EP.  
Tel: 01603  
876681.  
Price:  
£19.99  
plus 75p  
P+P

**79%**

## L5D 3

While some CDs are full of shiny files not suited to portable installable utilities, L5D 3 is a somewhat study one of the most useful and user-friendly discs around. It's been put together in the Amiga group L5D, the product of much data compiling and not writing. The emphasis is on the demo scene, although there are also a few utilities, clip art files and sound samples.

L5D have been the trouble to make as many of the demos run straight from the CD whenever possible rather than saving everything as an LHA archive which needs to be unzipped and then run. Considering the 800Mb capacity of CD-ROM, this is something I'd like to see more of. There's also a good selection of animations and pictures which can be viewed straight from the AmigaGuide editor. Music files are not listed for too, with lots of Protracker and ScreamTracker modules.

Not everything can be run straight from the CD, so in the AmigaGuide files section you'll find another load of demos, animations, pictures, animations and samples. Games get a look in too with Assassins duke 2.11 to 2.50 along with a few others for good measure. If you like the fun side of Amiga PD, L5D 3 is definitely the one for you.

**Available from:** 17 Bit  
Software, 1st Floor Offices,  
216 Market Street, Manchester.  
Tel: 0161 24 36883. Price:  
£19.99 plus 75p P+P.

**90%**



## 2PEQ G DATAFILE









# PD Scene

Firm layers of beefy code, sprinkled with sound and music, graphics with a cheesy tang and games with a definitely fruity tomato flavour.

This is the public domain.

## Coin Mania game

It's leaping action play in this game where you've got to jump around the tiled area to collect coins within a set time limit. It's not all that simple though, as some of the tiles have a nasty habit of disappearing. You've got to be careful not to fall through gaps in the floor and plan your route carefully to avoid the obstacles and enemies which delay and try to kill you.

An enjoyable little game to play, but the difficulty level is set quite low so it doesn't really get the adrenaline going, mainly because it seems so slow. The two biggest criticisms I have are that there's

hardly any sound to spice things up and the graphics aren't as polished as they might be. Not top of the range but good for a few hours of fun.

Available from: AOE/E Productions, 2 Bells Road, Headington, Oxford, OX3 5AQ. Price: £5.00 (UK), £6.00 (Rest of the World) including P&P.



71%

## 10 Amiga Doom Clones AGA pack

It's no great secret that the one thing PCs can do which Amigas have trouble with is Doom. So for months now we've had attempts to replicate that game on our favourite machine. This pack contains 10 disks, each of which houses a Doom clone or variant.

The first is Fears. These are three versions of this alone, all of which pretty much resemble each other, with improvements being made through the series. You can move freely around one or two levels, shooting oncoming foes and solving little puzzles.

A more gory version is the Doom preview; the whole thing is unmercifully bloody, with the sound effects to match. The last in this type of vain, pardon the pun, is Team 17's Alien Breed 3D demo which is absolutely superb.

On a different tack is Spawns in which the object is to race around the Doom-like maze, crouching and jumping through and over obstacles to complete a race course in the least time possible. This isn't all that easy to play as you bounce off objects and you seem to collide about a lot. But it's exhilarating fun! To pad out the pack are four disks showing how good certain Doom clone routines are. Interesting as they may be, they're not particularly entertaining.

This is a fair pack to obtain if you're into this kind of game, or you want to shut up some idiot who believes Microsoft can save the world. Others should look elsewhere.

Available from: SKATERESS PD, 13 Russell Terrace, Mundesley, Norfolk, NR11 6LJ. Tel: 01263 732169. Price: £3.00 including P&P.



69%

## High Anxiety AGA demo

If you're anxious to see lots of fancy graphics routines then look no further! A texture-mapped spinning landscape greets you, plus a head object and this quickly cuts into a tunnel which zooms up the screen at speed. Morphing Geonault complex objects then appear, some of which are extremely complex (and hence slow), followed by entangling, rotating and orbiting graphics. This is just a taste of what goes on as the music picks up, slows down and generally fits the action well. Always have always been handy with these graphics (see their slideshow elsewhere in this review) but this time they've made them just plain long.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Witley, West Midlands, WY12 9M4. Phone: 01823 710885. HD required. Price: £3.00 plus 50p P&P.



83%



## Wooglies game

The objective here is to trap the woogles in the squares which you can move around the screen. However, they move fairly quickly and can squeeze out of just a tight spots, so you've got to box them in. The concept is simple enough, as all good games are, but in practice it's totally funnelling. You think you're one of the things trapped and it squeezes out! It's a really well put together production though, with some good music and graphics, and the gameplay is set at about the right level. Wooglies can play this game and enjoy it to, indeed, get angry at it.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands B712 8NH. Phone: 01822 710885. Price: £1.00 plus 50p P&P.



89%



Include such things as Michael Jackson, famous pig-breasts, breasts, women and, most impressively, Al Bundy! Every single picture is simply brilliant and you'll be doing yourself a huge disservice if you miss this one out. Rush off your postal orders now to grab yourself a copy of this one.

Available from: Freestyle PD, 108 Woodside Way, Short Heath, Willenhall, West Midlands, WV11 8NH. Phone: 01822 710885. Price: 1.00 plus 50p P&P.

## Funhouse 3 games

Buying the average PD disk which is usually only 20% full is a complete money-waste, which is why this disk is such good value because it's packed. There are three games on here, the first of which is Rectoverlap. You must guide your bug-buster around a maze of circles to get traps which kill off the evil that have infected your system. You can transport to other parts of the maze and the action gets really frantic at times, especially on AGA machines as AMOS speeds up! It's immense fun! The second game is Grounds and here you have to shoot the bogey-like critters before they reach the left hand side of the screen. It's playable on AGA machines because it's way too fast for any IEC system should be fine.

Next up is Boing, in which you play the part of a boomerang thing which, you have to keep providing an otherwise it will lose its forward so, being careful not to lose your spring, you've got to collect the stars that float each playing area and then make your escape.

Finally, as a bonus, you get Coc, a funny little utility which makes pictures into strange and wonderful patterns, worth a look, if only for a bit of a giggle. A good disk, highly recommended.



Available from: Softbitstamps PD, 1 Lower Mill Close, Goldthorpe.



Available from: Softbitstamps PD, 1 Lower Mill Close, Goldthorpe. Tel: 01108 888122. Disk No: 0028. Price: 10p including P&P.

84%



## Skid Racer game

There are certain games which some people love and other people either despise or have trouble fathoming their appeal.

Skid Racer is one such game. Tony Hargan absolutely adores this. Personally, however, I think it's about as good as Ernie Wise's underpants.

Unsurprisingly, the idea is to race against two computer-controlled opponents around various circuits. It's as easy as that. The game simply isn't polished enough to be all that pleasurable though.

For example, part of the second course is lined with old cars (some of which are more appealing than the one you're forced to control, but enough of my biasedness and, if you hit them slightly wrong, you get stuck in between and that's the rest of the game up the spout).

I'm not going to rubbish Skid Racers any more, because it is enjoyable, in a crap kind of way, but do be warned: unlike good PD, with Skid Racer you definitely get what you pay for.

Available from: Software 2000.

9 Wile Street, Loxley, Birmingham, B70 1PP. Tel: 0524 679006. Price: 50p plus 70p P&P.

85%

42%





## Aerial AGA demo

A strange effect, this demo. It includes a Cover section, with a marvelous bounding around in a strange, post-hole bounding, with the more spinning and blurring. More meditations follows with Ten gloom, where shapes appear suddenly and then disappear through clouds of color. The meditations continues as a meditative (7) holding a violin continues covered with strange images, whilst twirling and spinning in the air. The soundtrack is also bizarre and alternates between being awful and quite good.

Available from: Freestyle PD, 100 Woodside Way, Short Heath, Wiltshire, West Midlands, WY13 8BH. Tel: 01932 710888. Price: £1.50 plus 50p P&P.

79%

## Hilt game

All the usual RPG stuff is here including spells, weapons, monster slaying. Most of the game takes place inside a dungeon that contains 66 levels, so it's up to you, with your team of four characters, to explore all these levels, find treasure and slay any baddies that you come across. Well, Hilt doesn't quite reach the standards of other RPG PD games around. A poor effort.

Available from: Saddletramps PD, 1 Lower Mill Close, Goldthorpe, Rotherham, South Yorkshire, S62 9BY. Tel: 01709 688127. Disk No: PDG-006. Price: £2.50 including P&P.



42%

## Disk Magazines

### Sauce 'N' Code #2



This disk contains anything any AMOS coder would want, including source explanations and executables. Topics covered include sound (VU bars, specifically), word wrap routines, a font bank, macros, ways to do rotating circles, fading pictures, plasma, and intuitive and system operations. There are also a few AMOS extensions.

It's all presented in a disk magazine format, so you can view all the text required, read the accompanying instructions, then extract the actual code for implementation into your own AMOS productions. Very well done.

Available from: Freestyle PD, 100 Woodside Way, Short Heath, Wiltshire, West Midlands, WY13 8BH. Tel: 01932 710888. Price: £1.50 plus 50p P&P.

80%

## The Ultimate Manager game

If you don't already have a shelf full of football management games, you may like to try your hand at this. The PD version reviewed here allows you to play through two full seasons of Premier League and European action. The excitement of the matchday is represented by a list of fortunes and a speeded up clock, with the scores for teams updating as goals are scored. The game is best based with a few small graphic touches here and there to brighten things up. The registered version offers unlimited game time. One for management fanatics.

Available from: Network PD, 32 Malton Road, Sheffield S2 3PJ. Tel: 0114 281 9100. Disk no. 0008. Price: 70p plus 50p P&P.

78%

### Out of Space #1

Tell another NVA production, this is the first in a series of compilations of articles of concern with the supernatural, alien and all that kind of spooky stuff. There's a huge range of material, including some fascinating writing about alleged US government cover-ups of UFO sightings, landings and investigations, not to mention the inevitable conspiracy theories which surround the subject. If you're in any way inclined to find out more about what may be going on 'out there' then this is a great place to start.

Available from: Saddletramps PD, 1 Lower Mill Close, Goldthorpe, Rotherham, South Yorkshire S62 9BY. Tel: 01709 688127. Disk No: MC172. Price: 50p including P&P.

85%

### Movie Zone #2

Philip Swales isn't happy with us, the indie spirit with our review of Movie Zone #1 and so he's challenged us to critique this.



The next issue. All right then you're in... It's a damn fine read actually. If you're a bit of a movie buff there's plenty to get your teeth into here including a profile Quentin Tarantino's films, pictures from various productions including a bunch from the ubiquitous Festival Doge, movie news, quotes, and opinion on the state of the business. There are also reviews of lots of films too. Unfortunately some of these are a little dated now, but that's the nature of these semi-periodic productions. The digitised pictures are also of fairly low quality, which is a shame, but understandable.

If issue two is anything to judge by I hope to see more. There needs to be more substance put into it, but that will doubtless arrive as Phil receives more third party contributions - so get to it people!

Available from: Philip C Swales, 28 Campbell Road, Hartington, Cleveland TS25 3BB. Price: £2.35 including P&P.

81%







# zoom

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## THE AMINIT COLLECTION

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## NFA AGA EXPERIENCE

NFA AGA Experience is a collection of 100 AGA images. It's a great way to see the power of AGA graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## LSB VOLUME III

LSB Volume III is a collection of 100 LSB images. It's a great way to see the power of LSB graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## TEXTURE PORTFOLIO

Texture Portfolio is a collection of 100 texture images. It's a great way to see the power of texture graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## 17BIT DIMENSION V

17Bit Dimension V is a collection of 100 17-bit images. It's a great way to see the power of 17-bit graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## BRAND NEW RELEASE

## ARE YOU READY? COMING SOON... MATCH THE SPACE FOR MORE DETAILS

Are You Ready? Coming Soon... Match the Space for More Details is a collection of 100 images. It's a great way to see the power of Match the Space for More Details graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS

CD Books is a collection of 100 CD images. It's a great way to see the power of CD graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## WORLD INFO #1

World Info #1 is a collection of 100 World Info images. It's a great way to see the power of World Info graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #1

CD Books #1 is a collection of 100 CD Books images. It's a great way to see the power of CD Books graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #2

CD Books #2 is a collection of 100 CD Books images. It's a great way to see the power of CD Books graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## LIGHT BOX COLLECTION

Light Box Collection is a collection of 100 Light Box images. It's a great way to see the power of Light Box graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## RED FISH

Red Fish is a collection of 100 Red Fish images. It's a great way to see the power of Red Fish graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## HYPERMAGN TOULON II

Hypermagn Toulon II is a collection of 100 Hypermagn Toulon II images. It's a great way to see the power of Hypermagn Toulon II graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## MEGA GAMES CD

Mega Games CD is a collection of 100 Mega Games CD images. It's a great way to see the power of Mega Games CD graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## MEGA GAMES CD #2

Mega Games CD #2 is a collection of 100 Mega Games CD images. It's a great way to see the power of Mega Games CD graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## MEGA GAMES CD #3

Mega Games CD #3 is a collection of 100 Mega Games CD images. It's a great way to see the power of Mega Games CD graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## LIGHT WORKS

Light Works is a collection of 100 Light Works images. It's a great way to see the power of Light Works graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## AMBIT COLLECTION #2

Ambit Collection #2 is a collection of 100 Ambit Collection #2 images. It's a great way to see the power of Ambit Collection #2 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD AMBIT

CD Ambit is a collection of 100 CD Ambit images. It's a great way to see the power of CD Ambit graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## AMBIT COLLECTION #3

Ambit Collection #3 is a collection of 100 Ambit Collection #3 images. It's a great way to see the power of Ambit Collection #3 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## AMBIT COLLECTION #4

Ambit Collection #4 is a collection of 100 Ambit Collection #4 images. It's a great way to see the power of Ambit Collection #4 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## AMBIT COLLECTION #5

Ambit Collection #5 is a collection of 100 Ambit Collection #5 images. It's a great way to see the power of Ambit Collection #5 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## SPECT 3

Spect 3 is a collection of 100 Spect 3 images. It's a great way to see the power of Spect 3 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## COLOUR LIBRARY

Colour Library is a collection of 100 Colour Library images. It's a great way to see the power of Colour Library graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## 844 SEPARATIONS

844 Separations is a collection of 100 844 Separations images. It's a great way to see the power of 844 Separations graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## HOTTEST 3

Hottest 3 is a collection of 100 Hottest 3 images. It's a great way to see the power of Hottest 3 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #1

CD Books #1 is a collection of 100 CD Books #1 images. It's a great way to see the power of CD Books #1 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #2

CD Books #2 is a collection of 100 CD Books #2 images. It's a great way to see the power of CD Books #2 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #3

CD Books #3 is a collection of 100 CD Books #3 images. It's a great way to see the power of CD Books #3 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #4

CD Books #4 is a collection of 100 CD Books #4 images. It's a great way to see the power of CD Books #4 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #5

CD Books #5 is a collection of 100 CD Books #5 images. It's a great way to see the power of CD Books #5 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #6

CD Books #6 is a collection of 100 CD Books #6 images. It's a great way to see the power of CD Books #6 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #7

CD Books #7 is a collection of 100 CD Books #7 images. It's a great way to see the power of CD Books #7 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #8

CD Books #8 is a collection of 100 CD Books #8 images. It's a great way to see the power of CD Books #8 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #9

CD Books #9 is a collection of 100 CD Books #9 images. It's a great way to see the power of CD Books #9 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #10

CD Books #10 is a collection of 100 CD Books #10 images. It's a great way to see the power of CD Books #10 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #11

CD Books #11 is a collection of 100 CD Books #11 images. It's a great way to see the power of CD Books #11 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.

## CD BOOKS #12

CD Books #12 is a collection of 100 CD Books #12 images. It's a great way to see the power of CD Books #12 graphics. The images are arranged in a grid and can be viewed in a window. You can also save the images to your hard drive.







# PD Utilities

Make your Amiga sound like Darth Vader, read up on the latest arms news or generally make your Amiga more efficient with this month's selection of chosen utilities from the Public Domain

## Vark CU Utilities #9 Utility compilation

The latest edition of Vark is a good utility collection. First of all there's *Algothrac*, which creates swirling random music, an interesting sample compressor that sounds like Darth Vader, a brilliant Conversation Transfer script generator and a neat public screen grabber. There's also some rubbish, like *Atm-o-buster*, which is designed to temporarily double a specified amount of RAM. It asks if you want to reset, but if you type No it resets anyway! Vark is definitely worth tracking down for the better stuff, though.



Available from:  
Roberta Smith DTP  
100 Fiddlers Way,  
Ranspord Garden  
Suburb, London NW7  
5JL. Tel: 0181 488-  
1028 Price: 80p +  
50p P&P

**89%**



## Multi Icons 2 Replacement icon pack

Initially put off by the German installer and documents, I soon realised that Multi Icons isn't just another boring icon package. It has much the same sort of installer as Magic Workbench so it's easy enough to use though unfortunately it doesn't have a de-installer to save the icons won't to your taste. This is not a real problem though, since it didn't install the icons over my old ones automatically.

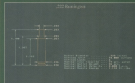
After installation, the end result is something that looked impressive and quite different from your average Workbench or Magic Workbench setup. If you're one of those people who like strange icon packs for your Workbench or want your machine to look original, then I highly recommend this effort. There's no shortage of icons to pick from and they're both colourful and clear.

A full set of different picture drawers are provided so your hard drive's next directories can be pictured as well as your applications drawers. There's replacement icons for all the standard Workbench programs including preferences etc. Oh yes, they seem to be designed for non-integer screen resolutions, which is good news for many. Maybe Amiga Technologies could include one of these packs with new Amigas in the future.

Available from: Pixel Digital PD, Unit 5,  
Laural Business Centre, 15 Laurel Road,  
Liverpool, Tel: 0151 259 4017  
Price: £1.00 + 50p P&P

**88%**

## AmmoGuide Ammunition database



I just love Roberta Smith's disks with their nicely printed labels. Since I just happened to need to know the vital statistics of a German .30 Lager bullet, *AmmoGuide* seemed set to make my life complete. Not. *AmmoGuide* will even do a surface 3D render of the desired small arms ammunition just so you know exactly what one looks like. Technical information is also available including the cartridge dimensions, grains of primer and muzzle velocity etc.

A fair range of gauges is covered meaning that it makes a good ammunition reference. There's just one burning question that needs asking: what's the point in it if it's not exactly essential last-time reading now, is it.

Available from: Roberta Smith DTP  
100 Fiddlers Way, Ranspord Garden  
Suburb, London NW7 5JL. Tel: 0181  
4881028 Price: 80p + 50p P&P

**65%**



## Digital Utils Utility compilation

Digital Utils is a collection of four utilities one of which, Magic Check, is the mother of all check utilities. It's really configurable down to each hard and time format, and it has the standard analogue view. (Disk Space is a DOS clone that really uses a host of other utilities to generate a file image of a disk. It uses LZX for the compression which means it gets pretty good results but is a little complex for common use. Zip Brother is a 'zip-master' installer basically a hacker's assistant. It just crashes whatever I tried to do. Lastly, Associate makes links for any files. You just drop them on its desk icon and tell it whether the file is a sample, picture document or whatever and it'll tell you how and plug in the appropriate links into the desktop - potential is very useful. Overall a 50% hit rate on this pack but the good stuff is worth it.

Available from:  
Pixel Digital PD, Unit 8 Laurel Business  
Centre, 15 Laurel Road,  
Liverpool. Tel: 0151 259 4017  
Price: £1.00 +  
35p P&H



**79%**

## GPXLab-24 Image processor

This French image processor certainly isn't lacking in features. However what is missing includes an on screen preview and a resizable GUI. GPXLab-24's GUI is NTSC size and it won't change for anything. Not that it matters since the main view window is only a text log of each operation performed. On the right is a list view with a selection of processes. As usual it has a preview function which thoughtfully comes with loads of matrices but they must each be loaded by hand. Overall, the approach is like a hacker's image processor, with operations that are slower than image Studio (obviously so at times). Its internal picture viewer is fast to crash but thankfully you can drop in a third party viewer. Image Studio is still a far better option, but this could be useful if you rely occasionally use image processing tools.

Available from: Pixel Digital PD, Unit 8 Laurel Business  
Centre, 15 Laurel Road, Liverpool. Tel: 0151 2594017  
Price: £1.00 + 35p P&H



**74%**

## LazyBench 1.2 Application launcher

LazyBench is a simple launcher combined. Once run, a user definable hotkey brings up a list of your favourite applications. A further click will run the selected application, upon which LazyBench automatically unloads. All it needs is the path saved to a configuration file which is edited with your choice of text editor (well, simple and unobtrusive, it's probably worthwile if you have no applications launcher at all. This kind of utility is very useful for hard drive owners since actually finding the program you want to run, can take a while.

Here at CUI Amiga, we use LazyBench but that's a fair bit more complex and you may not like your Windows menu cluttered with copies of programs. Just dropping LazyBench into your Windows desktop is all that's required and it consumes practically no memory. You will need to know how to use a text editor though since it's a shame that most applications can't be added by dragging and dropping as with LazyDesktop. If you're nothing like it, get it now.



Available from:  
Executive PD, 7  
Barnard Close,  
Watersloville,  
Herts SG1 5UN.  
Tel: 01753  
642408 Price:  
£1.00 + 75p P&H

**86%**

## RAF Fast Jets Aircraft database

Taking a departure from utilities, RAF Fastjets is an comprehensive of various aircraft the RAF has used at some time. Much more than a simple collection of images, there's diagrams, technical specifications and the history of each particular machine. I found the disk quite informative and entertaining having a passing interest in the subject matter. All the files are Powerpoint but luckily the thumbnails on the disk do point to the correct view/slides on the disk that underlines the format. The collection conveys the author's enthusiasm for the topic and it's easy to access it all from Happy 8D installation however, would be a pain due to the term boottypes etc. You could, of course, use your own tools to view the information on the disk. Previously from the CUI Amiga-aware range, this disk and a collection of other aircraft database disks are now available as shareware from SoftSet. Definitely worth a look if the topic is of interest.



Available from:  
SoftSet Computing,  
Unit 3, Marble  
Enterprise Centre,  
Countryside Lane,  
Limbington,  
West Sussex BN17  
7PH. Tel: 01803-  
666318 Price:  
£1.00 + 35p P&H

**85%**











# AMIGA

## workshop

### BUYERS GUIDE 100 ●

Competition in the world of Amiga OS has trading is really hotting up. Find out which is the best 3D graphics system for you in our comprehensive buyer's guide.

### OCTAMED 5.04 102 ●

Simple waveforms are pulled and poked in to create some cracking guitar sounds with Octamed.

### IMAGE FX 104 ●

In our final Image FX tutorial, Tony Horgan gets into the festive spirit and reveals a host of new tricks and effects.

### PAGE STREAM 2.2 106 ●

It's time for compliments. Compliment slips that is, as we continue to build up our PageStream stationery set.

### DPAINT V 108 ●

Peter Gee tries his hand at some rilly crossstitch in DPaint V as he shows us how to recreate the effect of the ancient craft of embroidery.

### WIRED WORLD 110 ●

More of the mystery concerning the wonderful world of the Internet is slowly dispelled for us by our resident Comics expert.

### AUDIOMASTER IV 114 ●

Having already detailed November's cover disk AudioMaster's basic setup, we now take a look at the effects that make it so special.

### SUBSCRIPTIONS 128 ●

Save £12, take out a subscription, then you're guaranteed to get a copy of the best Amiga Magazine around every month.



AudioMaster IV box



Bathroom tiles and Christmas cards star in our final Image FX tutorial. And as we say goodbye to Image FX we say hello to the first tutorial on AudioMaster IV, our November cover disk. Then it's on to embroidery and compliment slips with PageStream and DPaintV. Finally as well as the usual helping of questions and readers letters there's the revelation that Windows '95 is good for the Amiga. Well, Andy Leaning thinks so ...

## Regulars

### FAQ 121

Creating animations and the problems you encounter are covered for you in this month's extensive questions and answers section.

### Q&A MASTERCLASS 122

What are desktops? They appear every now and then on cover disks and ERSs. What can you use them for? Find out in Masterclass.

### Q+A 124

Tony and Alex sit down, once again, to put their thinking caps on as they present this month's selection of reader's questions.

### BACKCHAT 126

Heated debates and differing opinions are bandied about in the pages which are dedicated to your points of view.

### POINTS OF VIEW 130

Windows '95: good for the Amiga? Or just? No. Andy Leaning, technical editor of PC, Positive explains why he thinks the Amiga will benefit from the hype around Windows '95.



# Buyers Guide

## 3D Rendering software

**Amiga 3D rendering software can produce incredibly lifelike images and animations. Which package is right for you? Take your pick from the main contenders.**

**3**D graphics is one area of the Amiga scene that's really taking off at the moment. All of the major 3D rendering packages are constantly being upgraded in the race to become the Amiga's top 3D graphics system. While this fierce competition means plenty of hard work for the software developers, it's good news for the rest of us who reap the benefits of the ever more powerful software.

Why would you want to use a 3D rendering package? Apart from the obvious fun element, there are plenty of useful and lucrative uses for the software on these pages. At the lucrative end, there's lots of cash to be made from creating

animations and sequences for TV programmes and adverts. All the big action movies make extensive use of LightWave and similar systems. CD-ROM games are also plastered with 3D animations and you can study's generate sequences and images to spruce up your own computer and video productions. If you want a job in movie special effects, you could do a lot worse than send Stanislav Spolovskiy a video CD. Get the idea?

### The basics

All of these packages work along similar lines. Objects are created in a 3D environment or with a combination of wire, plan and front views and initially placed as

wire frame constructions. At this stage the objects have no surface colour information, so they need to be coloured, or for maximum realism, covered with 'texture maps' which are image files that are wrapped onto the surface of the objects. Once a few light sources have been placed around the scene it's ready to render into full colour 3D. This is sometimes called ray tracing, as rays from the light sources are bounced off the surfaces of the objects and traced around the entire scene to produce realistic highlights, shading and reflections.

Animations are created in the same fashion, but movement paths are defined before the rendering begins. Rendering even the

simplest scenes can take a while, so small test renders are commonly used to check that everything is in place before the real rendering begins.

### Requirements

A hard drive is essential, along with plenty of RAM. Plenty can be anything from 2MB to 100MB or more, depending on the scale of your projects and the software you use. An AGA Amiga is preferable for decent results. Perhaps surprisingly, 256 colour AGA screens are often sharper and more defined than 4096 colour HAM4+ screens (the best output offered by non-AGA Amigats). Amiga's HAM4+ mode is the best of the lot and can be indistinguishable from full 24-bit colour.

We've compiled this guide to the prominent Amiga 3D rendering packages to help you decide which is best for you. Take your pick...

## Cinema 4D 2.1

**Supplier:** Autodesk

**Tel:** 02025 716 181

**Price:** £299.95

Cinema 4D is causing quite a buzz at the moment. Reviewed in the November 1995 issue of CU Amiga Magazine, this German developed ray tracer has just received its first translation to English, giving the rest of the world the chance to enjoy the Amiga's most intensive 3D graphics system.

Cinema 4D manages to offer a wide range of advanced modelling and rendering features without demanding too much from your Amiga. It's possible to use the system in as little as 20% of RAM, although various projects will require more memory. This is partly due to its modular approach and the way it uses separate minimapping programs for various different tasks. More of its competitors call for ten or five times the amount of RAM just to get started! Everything about the system has been designed for quick and easy use, to the degree that simple scenes can be created before you've even looked at the manual. Although it may not have all the advanced features of some of its rivals, Cinema 4D is still powerful enough to create some excellent scenes and animations. For anyone new to the world of 3D rendering, Cinema 4D is an ideal entry point and should also be considered by more seasoned artists.





## Imagine 3

**Supplier:** Unreal Creative

**Tel:** 0181 715 0865

**Price:** £29.95

A firm favourite among many long-serving Amiga users, Imagine is regarded by many as the best all-rounder, taking its account system requirements, features, speed and results. Its main failing is its user-friendliness, which doesn't score too highly. However, once you get used to its workings, it can be the fastest way to generate stunning 3D pictures and movies.

Animation is one area in which Imagine shines particularly brightly. Features such as morphing and tweezing take a lot of the hard work out of setting up movement paths, while the Bones feature allows objects to be joined together and moved as they would in real life. If value for money is a priority, Imagine should rank highly on your shopping list, as it offers a heck of a lot for just £29.95 which is a bit of a bargain in the 3D-rendering market.



## Real 3D 3.0

**Supplier:** Active International

**Tel:** 0181 402 5770

**Price:** £299.95

As the name suggests, realism is the key point here. Although it's not immediately obvious, Real 3D works in a slightly different way to most 3D rendering software. Real 3D objects are 'solid' models, rather than empty shells made from lots of flat surfaces. Real 3D can also render objects with curved edges inferred to as 'B-splines'. Real systems would have to use many smaller surfaces in conjunction with smoothing algorithms in order to simulate curves.

One of other tricks employed to make Real 3D scenes and animations more realistic than the rest. For example, simulations of glass and other see-through materials are accurately created, while there's a lot of help in generating living objects including a skeleton kinematic system and shrink-wrap texturing for clothes and skin effects. Hardcore power users can even make use of the in-built programming language. Mainly due to the solid modelling techniques, rendering times can be long and for the same reason general operation speed is low. While some screens can take quite a while to draw when working with complex objects, to use Real 3D practically you will need a fast Amiga. We recommend a 68040-based Amiga or better. However, the resulting images and animations are often streets ahead of those of its rivals.



© 1991 A. G. G. Ltd.

## LightWave 4

**Supplier:** Premier Vision

**Tel:** 0171 721 7059

**Price:** £119.15

The cinematographer's choice, LightWave could be held responsible for getting Amiga installed in countless TV video and film production studios, particularly in the USA. Its creators Newtek, who should be thanked for turning the world onto the Amiga 1000 in its early days, used to sell LightWave with their Amiga-based VideoToaster (an M750-only video effects system). LightWave was later released as standalone software for all Amigas and has now just reached version 3.5.

While it requires a big Amiga to run stacks of memory and hard drive space it really does the business. No doubt you've heard of the many big-budget productions that have used LightWave: Babylon 5, StarQuest DS9, Michael Jackson's videos and more. Its animation and modelling features are second to none, and if you have an Amiga that's big enough and fast enough to do it justice, you won't want to use anything else.



© 1991 Newtek Inc. All rights reserved. LightWave is a registered trademark of Newtek Inc.

## Caligari 24/Broadcast

**Supplier:** Unreal Creative

**Tel:** 0181 715 0865

**Price:** £89.95/£249.95

Caligari is available in two editions: J4 and Broadcast. Neither version offers full ray traced rendering, opting instead for 'scanline' rendering. The advantage of this is that rendering times are much shorter than with the other packages covered here. The other main selling point of Caligari is its user-friendly interface and fast 3D wire-frame scene previews. Unfortunately the rest of the Amiga's system is temporarily disabled while running Caligari so you can't multi-task it with other programs.

Caligari Broadcast is the big brother of the pair, and offers extra animation tools and 24-bit output (unlike Caligari J4 straight). If rendering speed is your top priority, then Caligari is well worth a look.



# OctaMED 5.04

## PART 2

**B** and it stretches it, shapes it. There's no end to the

amount of fiddling about you can do with a waveform in OctaMED.

To let you try it out for yourself, there's yet another sample on this month's cover disk - TimeForTed in directory C:\131\Samples - so load it in. Even better, add it to your sample list first (see last month).

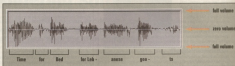
Click Edit Sample (top right) to open this month's focus window, the sample editor. The black squiggle in the window is TimeForTed's waveform, the sample in picture form. The thrust of the sample editor is manipulating this waveform: move this bit to there, change the volume of that bit and so on. By the time you've finished the sample can be completely mangled! The white line along the waveform's centre marks zero volume; the further a particular point is from this line, the louder the point's volume.



right? This is why the range's sound a bit low: the playing pitch is set to C-3. Set the correct pitch (C-3) by holding the left mouse button on the box containing C-3 and pressing the C-3 key. Should be better now. To testing other pitches too, I recommend G#3 but put it back to C-3 when you're done.

Now it's time to thoroughly mess up the sample: we'll rearrange and remove waveform bits until we have 'guns for ted' instead. First, we'll take out the first waveform bit, time. Its exact position is 0 to 4829, so tape these

innocent sample waveforms are totally destroyed in the name of creative expressionism.



Range Start: 0

Range End: 4829

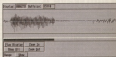
numbers into range (start) end and (see the marking ranges box-out). Play the range (play button) - is it time? - then click erase (bottom-middle). Play the newly-edited sample using the keyboard. Next we'll remove 'for Lorraine', the middle two waveform bits. Roughly mark a range over them (its changing), then referring to the same box-out, adjust the left side range start to 6751 (and the right side to 8958, it's take practice but you can always type in the positions if your mouse hand's a bit shaky). Once marked, play the range, click erase and play the new sample.

Now all you need to do is out and paste 'guns' to the start. The range start is already at the start of 'guns', so adjust the right side of the range to the far right of the sample (range end should be 16108) and play the range as a check. Click out (near to erase) to cut 'guns' to the copy buffer. Finally, set both range start and end to 0 using the box-out (bottom-right). Play the whole sample, hopefully it's turned into 'guns for ted'.

### Zooming in

The mouse then digitally sculpts among you may have noticed that, as a result of the last post, the waveform has been magnified. (See the black scroll bar just below the waveform? This shows you which bit of the waveform is being displayed, roughly the left half. Drag the scroll bar to the right (or left) to move around the waveform, or use the left/right arrow keys. On the top line, the buffer box shows the length in samples of the entire sample, the display box the length of the bit currently displayed.

But how do you magnify and reduce the



display? Use zoom in and zoom out (bottom left). Notice the display box value (bottom left) even in and doubling with zoom out. Another way of zooming in is by marking a range, then magnifying this range to fit the display by

### Marking Ranges

A range is an area of sample waveform highlighted in white. Only one range may be marked at once.

- Mark a range by dragging the mouse over the waveform while holding the left mouse button.
- To adjust the left side of the range (range start), hold the shift key while holding the left mouse button on anywhere to the left of the range. Then move the mouse. Similarly for the right side (range end).
- To mark more precisely, zoom in before marking. Alternatively, type exact positions into the range start/end boxes (top right) - click inside the appropriate box, type a number, press Return. To quickly add a box to zero, press Ctrl-X instead of typing a number.



display show (bottom-left). Click play display (lower room) to play the current display (now you're finished, click Show All (bottom-right play display) to show the entire sample.

## Echoes of my mind

Perhaps at this point you'd like to save the current sample. Use any key (even the **space** key), although **Alt+S** is the most compact. **SP** and **HMAD** are really for **Auto 16-bit** samples, and **Save Sample** (as **Save**) is for **SP-ENK** which also stores sample loop information (see later) but we haven't set a loop, so...

Special effects time! We'll make the "old" at the end of the sample echo down to nothing (but we have to add extra space after the "end" to accommodate the echoes. So extend the sample to, say, 40000 bytes by typing 40000 on the buffer (just like typing into **Play** command) - remember to press **Return**. Clear all (wipe the sample out) to add retain in the sample that appears. Use the echo gadget?

Next we make a range over both the "end" and the space (by typing in 11040 to 20000). Then open the echo window (effects menu). You'll see there are three settings to set, although we'll ignore volume decrease. Echo size is the distance in bytes between each echo, change it from 400 to 4400. Set number of echoes to 5 and finally click Do Echo. Some time later if you have a slow Amiga like mine, **CHASER's** number crunching will be complete and you're free to play the newly-echoing instrument after closing the echo window.

Now, you'll notice that there's a bit of unused extra space at the end. Usually I'd advise selecting **Edit Menu** > **Remove Unused Space**, but this removes a little too much "extra Space" (this time it's the last echo). So mark and erase the range 20000 to 20000.

Working with special effects involves a lot of trial-and-error and luckily **CHASER** provides a "Inspector" feature to save you grief if those

settings you thought were perfect turn out to ruin your session. So before our next effect (change volume), click **Inspector** (bottom-right) This copies the whole sample to the copy buffer for later retrieval.

Most effects, including change volume, affect the marked range rather than the whole sample. So to affect the entire sample, you have to mark a range over the entire sample (if you get lost, there's a quick way to do this -



click range display above - buffered new. Next, open the Change Volume window (effects menu) and gaze at its myriad of features. The start and end sliders are the range start and end, and percentage volume changes; for example, 50% and 200% would slide the range's volume up four half-volumes (a double-volume). However, we'll stick to the four easy presets underneath the Change Volume button.

Click the **Make Preset** and play the newly-half-volume sample. Click **Double** to reverse the change, then click **Double** again. Notice the ugly dimension? You can only change the volume so far before the maximum limits are exceeded - although **Don't Clip** prevents this. Close the Change volume window and scroll the copy buffer by clicking **sample**.

**Range Display**  
**Sample** **Buffer**



**Do Anything Just For Effect? Take Your Pick**  
• **CHANGE PITCH** changes the sample. For example, to play only 0-2 when you press the C-2 key, set the source and destination notes to C-2 and 0-2 respectively. Then click the C-2 key. Raising the pitch shortens the sample and vice versa.

• **MIX** mixes the current sample (loaded with the copy buffer (destination)). The sliders adjust the relative volumes.

• **FILTER/BOOST** reduces noise or brightens the range. Averaging controls the strength. Distance controls the number of bytes that will be averaged. Averaging controls the severity of the averaging.

• **CREATE NOISE** adds hiss to the range.

• **CREATE CHORD** creates four to four-note chords out of the sample, just mixes the notes

and clicks **Create Chord**. Seven tracks when you're composing.

## Sample Some Of These Editing Tips

• Use monitor and display together with a sound sampler to do your sampling. Type the required sample size into **buffer** (the maximum 120000 bytes), then click **monitor** to open a window that shows what's coming through your sampler. Adjust the input signal's volume level until there's no distortion. Then close the window and click **display** to start sampling (interrupt with the right mouse button). The sampling rate is controlled by the pitch boxes.

• A "sample loop" sustains instruments by constantly repeating a certain part of the sample. To set it, switch **loop on** (bottom-left) two "loop pointers" appear at either end of the waveform, marking the repeated sample part. Adjust these pointers by dragging their small black triangles across the display, or by using the loop point gadgets. The < > gadgets move one of the pointers left or right (select which one



with the start/end cycle gadget). +0 and 0-1 search for zero values which can be good loop points.

Alternatively, open the instrument parameter window (see last month) and type exact positions into the repeat and Repeat boxes. Repeat is the loop start position. Repeat is the loop length (not the loop end). Back in the sample editor, confirm, but that's coming in almost really accurate pointer positioning. Any constantly repeating waveform shape in the sample is often a prime target for a loop - the **ADSR** sample on last month's cover disk is a good example.

• **SWITCH FREEHAND** on (bottom-right) then draw on the waveform with the mouse, just like **CPaint**. It's very exact, though, so you have to be highly accurate (the maximum display size is 320 bytes!).

• Other range-affecting gadgets should be self-explanatory. **REVERSE** is a great one for speech samples and unconvincing doggy hidden messages!

And in the Edit menu:

• **INVERT** turns the range upside-down. Find a use for it and I'll be galloped.

• **CHOP** chops the whole sample except the tagged part (like **Automastr's** **Chop**).

• **COPY TO SYNTH EDITOR** copies the first 1200 bytes in the synth's sound editor, our tutorial subject in a few months' time.

• **PLAY BUFFER CONTENTS** and **DISCARD COPY BUFFER** set on a memory jogger and a memory saver (cover it!).



## Do Anything Just For Effect? Take Your Pick

• **CHANGE PITCH** changes the sample. For example, to play only 0-2 when you press the C-2 key, set the source and destination notes to C-2 and 0-2 respectively. Then click the C-2 key. Raising the pitch shortens the sample and vice versa.

### Effects





# Image FX

PART  
**6**

In this, the last of our image FX cover disk tutorials, we'll be covering a range of ideas and techniques to inspire you to previously unscalped artistic heights.



A four-page grid shows us this feature working, where how the picture gets into the background. In each image, you'll see the effect resulting from various.

part will make the main image lighter and the middle grey tones will leave the picture as it was. Bearing this in mind you can set about creating your alpha channel picture. For the effect used here, set up a grid of around 16 x 16 pixel squares. With grid mode

switched on, draw the top and left sides of one square in black with a fairly thick pen size. Now draw the right and bottom sides in white, then fill the middle of the square with grey. Pick up the square as a brush, click the fill icon with the right button to enter the options and select Fill From Brush. Now you can click anywhere on the screen to fill it with tiles. Save this screen out to disk and call Alpha.

Open within Image FX, load your main picture into both the main and alpha buffers and load the alpha channel using the Alpha button from the main control panel. Select a filled rectangle from the drawing tools, and double click it to access the options. Switch the Mode list to to Fill Through, Blend to 50%, and Alpha to Use as Texture. Now drag a rectangle from the top left of the screen to the bottom right. The alpha channel will affect the main picture and turn it into a set of bathroom tiles.

## More than your bikini ...

Why not add Image FX to further your environmental cause? This picture started life as a postcard from the tropics. It was then put through a solarise effect to give the sky and sea an unreal, quality. Image FX offers a few colour changing options, all available from the Colour button. If none of them seems to fit the bill, try using the Custom tab for interesting results.

The shadow of the radiation symbol was finally drawn in Alpha for the sake of speed as with the tiles in the previous examples. This was then loaded



A few more steps to create your image's effects. Sometimes adding elements to the main picture is the best way to get the message across.

**H**ave you ever wondered what your bathroom would look like with a picture printed on the wall tiles? No, neither had I until I came up with this effect. It's quite simple to create and the theory can be used to add other textures to any pictures you may have. It works along the lines of the Break the Sound Barrier picture we created

last month, using a grey pattern as an alpha channel.

The alpha channel is just a normal picture, created with Paint. It could have been created with Image FX but Paint is quicker for simple images like this. To keep things simple, you should set up a palette ranging from black through grey to white. The black parts will make the main image darker, the white





▶ This haunting image was very simple to create. The original image was cut down to an eye value with a scanner and Photoshop 2.0.5. This was then flipped horizontally and pasted back inside the original.

into Image FX along with the portrait picture in the swap buffer. The symbol was cut out and pasted down into the selected portrait using a 40% Blend setting. Finally the text was added using the standard text tool.

## Merry Christmas

How about sending some personalised Christmas cards this year? If you've got a

camcorder and a video digitiser, or alternatively a scanner, you can take pride of place on all your friends' mantelpieces over the festive season by slipping your mugshot on all your cards!

The background was made with a combination of effects. First of all a small portion of a picture was cut out, then expanded far beyond its original size using the Smooth scaling mode. This avoids jagged pixelated edges by blurring the edges.

Parts of it were then warped with the Wave tool and various other tweaks were made. Finally it was twisted with the Twist function.

Next up was the foreground mugshot. This was scanned from a colour transparency, cut out from the background and pasted onto the white red backdrop, with anti-alias turned on to smooth out the edges.

The wave effect was simply applied using the Wave option from the Effect menu. The text

had to be legible, so this was put on after the wave effect using the text tool.

## Experiment

To finish off with the greatest tutorial cliché of them all, experimentation is the key with Image FX. Some of the best results are often created by accident and curiosity. Use your imagination and dig deep into the menus, combine multiple effects and generally mess around. It's also fun to take inspiration from the media. The chances are, anything you see on a poster, on TV or in a magazine can be recreated with Image FX and your Amiga. Send us your best work for inclusion in our Art Gallery section. ■

Tony Morgan

# Merry Christmas

*and a trippy new year!*



## That's your lot!

And so we find ourselves at the end of the Image FX Tutorial series. I hope you've enjoyed our monthly jaunts into visual whimsy as much as I have. See you around.



# Pagestream 2.2

## PART 2

**With compliments ... This month we expand your Pagestream stationery set with some compliment slips.**

**O**ver the last few months, I have had many people writing to me and asking how they can add new fonts to use with Pagestream 2. Their question and many more will be answered in this month's tutorial showing you how to make a stationery set without really trying.

Last month we looked at several subjects, including creating pages for our stationery set as well as adding guides, those were so useful in creating lines which make the placing of elements on a page such as letters.

We are now going to take the publishing process a stage further by creating some of the textual elements for your compliment slips. The design of these should be very similar to the one used for the letterhead last month, with only slight changes being necessary so all the elements can fit onto a different shape page.

Most compliments slips are made by splitting an A4 sheet of paper into three horizontal strips (one for each slip). Before you go ahead and create the first compliment slip, you will need to make a note of the margin required at the bottom of the page. This margin is the one dictated to you by the printer for printer driven and the area on the page it can print to.

This amount will vary depending on what printer and printer driver you are using. If you can only print to within an inch of the bottom of your page, then the bottom margin on all the compliment slips should be at least one inch wide. If it is only half an inch, you can use this amount as your minimum bottom margin.

To begin the tutorial, start by loading or creating an A4 page. As with last month and in common with the government's wishes, I am going to continue to work in a metric unit called millimetres. For three compliment slips, the page has to be divided into three horizontal sections.

This can be achieved by placing a guide three down the page and another at 100mm. This gives you a visual idea of how the page is to be divided. Zoom into the top half of the page by choosing 'Show Full Width' from the View menu. We can now work on the first compliment slip.

Transfer that bottom margin to your first compliment slip by adding a guide above the first dividing line (one of two that divides the page into three). It's also a good idea to use more guides to mark out your top, left and right margins as well. For continuity with last month's letterhead, import the same picture for your compliment slip.



**4** Check the correct alignment to add new text using the Font Manager.



**3** Study the full page into three by making use of the Guides function in Pagestream.



**5** This is the Pagestream response for showing the location of the font you want to add. Any clicking on this will lead to completing your fonts appear in the Windows. If you are working from a hard disk, the response you get will probably be different.



**6** With the use of guides, you can map out the area of the compliment slip you are going to use for your stationery.

## Managing fonts

Now we can add some fonts. Place a disk containing your fonts in any disk drive. If you are working on a floppy disk based system, this would probably be an external disk drive so you can leave your program disk in DPO. However, the best place for these fonts is in a drawer on your hard drive if you have one. The name of the disk I'm using for this tutorial is a highly original: 'teletext'.

Click on the text tool and choose 'FontPoints' from the Style menu. A panel will appear, at the bottom of which is a button called 'Font Manager'. Click on it using the left mouse button. A new panel appears. Click on 'Add' and a requester actually will show itself.

The type of requester will depend on your system. Running Pagestream from the floppy



## Jargon Points

**POINTS:** Text and other publishing attributes are measured in a unit called points. There are very small (there are around 72 of them to an inch).

**TEXT OBJECT:** A piece of text that can be stretched both horizontally and vertically.

**TEXT COLUMN:** Text that is placed in a frame. Frames can be linked and moved without distorting the text within them.

disk, you'll probably get the PageDrawn requester. If an AGI library is present in your Workbench Lite drawer (like it would be if you are using a hard drive), a normal Workbench requester will be used.

Concerning on those with floppy disk drives, I will presume your PageDrawn disk is the same as mine. If so, the requester will have a button on it called Drive. Click on it and keep on clicking on it until you see the name of the disk containing your fonts in the text gadget at the top of the panel. Your fonts should also appear in the listview under the disk name. You don't need to choose a file or a specific font to add — just tell PageDrawn the disk name or drawer (just pick it) where the fonts are and it will add

the fonts automatically. Providing that is, the fonts are the correct type like PostScript Type 1 for example. If you only want a single font to be added, you would need to place it in a drawer of its own and then choose that drawer.

Those looking at normal Amiga requesters should have no trouble finding their way to where they have stored their fonts they want to add. Click on OK when you have found your new fonts and then to save this configuration for ever and a day, click on the Save Default button on Post Manager's panel. Your fonts should now be ready to use.

## Text crazy

With your fonts in place, the next step is to cook up some text. To do this, click on the Text tool and then press Cmd-F or choose Font/Points from the Style menu. Choose the font required, the style and the point size and click OK. Stamp the text tool down on the page and type out your text. For this exercise, the text should be limited to a few letters or at most a small number of words.

Once the text has been finished, choose the Pointer tool and then grab one of the handles on the text object. If you hold the left mouse button down and drag the pointer (using the mouse as coarsed), you will notice that you can make the text bigger or smaller. Now save the text to suit your complement size.

## Playing in the shadows

In the example here, where I am placing the text over an image, a reverse drop shadow is needed to separate the text from the picture. To do this, make sure the text object is still selected (it due to this is that its handles will be visible) and choose the Object/Duplicate menu item or press Right Amiga-G. Click OK for one duplicate. Drag the duplicate away from the other text, choose the Text tool and click on the text. Press Right Amiga-A or choose Edit/Select All.

With the text selected, choose Object/Fill Style and click on a colour for your text. This text should now be a different colour to the other text and can be placed over the top or behind the old text to create a shadow. Just make sure the picture is behind both pieces of text.

The last bit of text we are going to create is a text column. This is text that is contained in a frame or box. These boxes are called Text Columns in PageDrawn and are different to text objects which we have just finished with a minute or so ago.

To make a text column, choose the Text Column tool and draw a box underneath the main text heading. Click on the text tool and stamp it down inside the text



▲ The text box column can be shown when you want text and then use shadows and other styling. The text box is shown shaded black to see by selecting the Fill/Colors menu box while the text is selected.



▲ Drag a red corner of the object to group them and use the Fill/Colors menu box to create the shadow. There can be a useful box position on the object's handles tips.

box. Repeat some text such as a name and address for your complement slip. If the text is in the wrong font add the wrong size, select the text by pressing Right Amiga-A (the equivalent of choosing Edit/Select All) and then choose Font/Points from the Style menu. You can now choose some new attributes for your text.

All that's needed now to finish the job is to group the objects, duplicate them twice and place one duplicate on each of the other two complement slips.

As usual, there is never enough space to cover everything, but you can be sure we'll be back next month with part three and some more hints and tips on working with PageDrawn 2. ■

Larry Miskewitz.

## Mail Bag

Since the release of PageDrawn 2.2 on the October issue of CU Amiga, I have had quite a number of people writing to me asking for advice. Due to the fact I have so little time these days, I apologise for not having written back with detailed answers to these people but you can be sure that the subjects brought up in these letters will be addressed in CU Amiga's materials over the coming months.



▲ Stamp the text tool down on the page and type out some text. This exercise uses objects. Select the text by pressing Right Amiga-A and then choose Fill/Colors from the Style menu. There are now three in total the attributes for your text.



▲ To create a reverse drop shadow, duplicate the text object by pressing Right Amiga-G and then place the text in a different color by selecting the Fill/Colors menu box while the object is still selected.



# DPaint V

## PART 2

Simulating embroidery and stone carving on your Amiga may seem far-fetched, but you can bring these ancient skills up to date with hardly a pricked finger or flattened thumb in sight ...



The flower you have edited eight times, it's the same look, but shaped and moved to make a unique difference every time. The results is a simple grey line and the flower is finished (yellow text).

**T**he much anticipated second additions to DPaint.

DPaint wasn't as comprehensive as many people were expecting, however, it did exceed the program's useful life and after some nice new touches to help improve any Amiga artist's techniques.

Over the next few issues we'll be bringing up to date some features which should speed up your artistic endeavours.

We'll kick off this series with a simple project which produces great results without having to expend too much effort.

### New textures

Textures, one of version five's new features, allows you to paint onto a screen which already has a pattern imposed on it. You can't see the pattern until you either paste down a brush, or apply colour with one of the painting tools but it affects everything you do. There are plenty of textures to load in and you can save ones you have created yourself.

The fabrics and canvas effects are the most useful for general purpose work, as they simulate real-life media.

The golden rule is to experiment with them all, judging for yourself which work for you. It was during just such a session that I found a neat way to mimic embroidery stitches. Follow this tutorial and you'll soon be a



★ Start a new texture as loaded in DPaint. You loaded a texture window called yellow loaded all five the textures. The blue window is on screen showing the pattern including it. The red window is the flower which has eight on eight can be filled a pattern the pattern chosen into a window. The other things done would be to go back to work of the flower — an only show it appears.

old hand with a needle and thread, on computer anyway.

### Embroidery

Here's how it is done ...

Use to-see, 256 colour mode, and from the effects menu, select texturedload and load in canvas-smooth. Use the filled rectangle tool with a mid-range blue and draw out a rectangle. You will see the texture applied to the colour — a kind of rough texture.

Switch to the spare page (key 3), and select a large font (anything

around 60 or 70 points from the font requester. Type in your text in a bright colour. Now clip out the text as a brush and outline it in red. To do this,

select red as the drawing colour once you have the text as a brush and press the 'o' key twice. This will produce a nice edging effect on the letter 'i' and will make it look as if the words have been carefully hand-stitched. Cut out the text as a brush.

Go back to the main drawing screen (1) again and paste down your brush. The bright colour you chose will dim as it is painted, one of the effects is the mirror checkmarks, but you should see it texture and it will appear as if it has been sewn onto the blue

background. Note how the red edges give a nice finish to the effect.

Often you find this kind of embroidered 'primer', as it was called, would also have delicate ornamentation, that's a double in DPaint. Move back to the spare page, clear it and draw a rough outline of a flower, five round yellow dots for the petals, an orange stick for the centre and a thin green stem will do.

The reason for the canvas-text is because once the flower has been cut as a brush and painted into the fabric, the



★ Simple yellow text, edged with a red outline gives an appearance of hand embroidered stitching when placed on the textured fabric ground.



★ For the final look on this is a spot of cross-stitching, which is simply a double in the spare of DPaint's five textures. Use blue, such as the 'i' in the flower ornamentation along a straight line or many lines on one line.





4 Before it was set, the marble screen marble effect was created using a paper screen and a variety of colors for the ink.

texture degrades it and makes a conversion of any fancy detail you might have used under normal circumstances. Once you have your flower, paste it down as many times as you like on the embroidery. Rip it occasionally with the *n* and *p* keys to give different looks to the same object.

The final touch toughens up the edges of the blue material, giving it a frayed and realistic look. You could achieve this effect exactly with a frayed brush, but by the automatic *xy* find if you want to save time and hassle, cut up the line spacing register (right click on the line tool), click on *N* tool, and type 20 in the total box. Using



4 Here's two examples of what you can do with text. Top shows the text tool and a single letter for the title.

the second smallest brush with the background color chosen as paint color, draw out a line along each edge. The brush will be painted just 20 times throughout the length of the line, giving the blue fabric a ragged appearance.

Finally, the white cross stitching was added by drawing one *x* shaped brush, and using the same line drawing techniques, with *N* total equaling 20.

The sewing needle and thread is an optional extra, made up of a grey line for the steel and a fine-hand line for the thread.

## Global issues

Our second tutorial takes us further into the workings of *Diffrent*, again using texture in a novel way and incorporating a really great piece of miniature animation. If you want, just follow the steps for the static image and leave the animation for another day; the picture itself is striking, though pretty easy to do and can work alone without the movement.

The effect resembles a marble plaque, in front of which, in the past, creating a surface such as stone required a lot of patience and some skill.

However, *Diffrent* simplifies this a great deal. To create the marble effect, load in paper-rough as the texture, and with brown as the painting colour draw a rectangle on screen. Match it in movement as the underlying texture creates a realistic marble effect. Forget rough paper – this is realistic stone work.

The highlighted bevelled edges, which give the block substance, are done in the same way, but using light and dark greys and the free-hand filled polygon tool. Use light grey for the top and right edges, darker ones for

the bottom and left. The text has been anti-aliased (taken high from the effects) and many before toping to smooth the jagged edges in this low-resolution mode, and a drop shadow effect added by initially painting the red text down as black (Press *F2* with black as the drawing colour then painting down as its original colour (key *F1*), offsetting the two images slightly.

That's all there is to it for the main image. But if you feel confident enough, we can go much further...



4 To get the marbled globe, opening one box to use the map 30 pixels above here, in the 20 register.



4 Here you can see how a line image, a line from the map and another texture (paper rough) can be used to give a fully realistic 3D optical effect.

## The Ins And Outs of Effects

The basis of any texture is a brush. You can load any item from the textures directory as a brush and examine it to see how it was constructed, and which colours were used to add light and dark areas to the image overlaid on it. If you're not happy with a particular texture, or want something more personalised you can create your own, save it as a brush and load it in via the normal texture/load option.

Another useful tip is to check out the inverse texture effect, this patches the image and background of a texture and in our example you can see how different your artwork can look. The textures with plenty of black in them are particularly striking, it effect doubling the number of 'holes' you can give an image.



4 Here's the two last textures are for bevelled, adding bevel effects are even interesting. Not too bevelled, showing the difference using in 30 and 20.



4 And for inverse, here are the 10 cells from the globe separately in sequence, showing how *Diffrent* changed and how to use an alternative texture for a new variation.





1. The spinning globe animation has been pasted down and the text 'HAND MADE' has been added. The image is now a separate object that can be moved independently of the other elements.

The globe at bottom right of the picture in the bottom right-hand corner actually revolves, showing the continents spinning realistically. Here's how to achieve this superb effect which can be used in many ways to suit your needs.

### All the world

The map image was really handy. It's one supplied with DPaint. Having saved your plaques, load in the map from the DPaint Pictures directory. It fits almost the whole of a 64k screen, but don't worry, size is irrelevant here (do, ha).

We need to animate the image now, but not in the normal, boring way; we're going to use DPaint's special camera move option. This is a useful addition to the normal animation techniques, but doesn't replace them. Go to the spin page (key J) and make sure it's clear. Call up the camera move option from the animation

menu, the wizard making the flat map scroll horizontally across screen and this is simply achieved. In the X distance box, type in 320 (the width in pixels of the screen mode, incidentally). Click the wrap box to activate it with a tick - this will render the image as a continuous stream, joining the leading edge to the trailing edge as it's shown. Select 10 as the number of frames, and click on now, and off DPaint goes, creating a 10 frame sequence of the scrolling map from the alternate page.

Cut out the sequence as a 15-cell animation (animation/animation/brush/paste) and save it. Clear the animation sequence right click on the clear tool, and select all frames.

Using the filled circle tool, draw a blue circle in the middle of the frame 1 of the blank animation, around 4cm in diameter. From the animation/frames menu, copy this frame to all frames.

Call up the fill requester (right click on the fill tool) and select wrap as the fill type. This tells DPaint to use the current brush as the fill object and to constrain

the image to fit the shape being filled. In our case this is the circle, and by constraining the fill map image projection in this way it will be re-stretched to look like a 3D sphere.

### Anim painting

With the animation of the scrolling map active, click on the fit tool and, holding the Alt key down, click inside the filled circle on frame 1, this will do two vital things. Fill the circle with call 1 of the animation, then move on to the next frame and use subsequent calls to fill the circles on each frame throughout the animation. This is called anim-painting, and saves a lot of time and effort.

Playing back the animation now results in a fine spinning globe. Call this out as an animation, save it, and replace your original plaque image. You will have to adjust the globe palette to that of the plaque, so from the colour/brush menu select rewrap.

Create the core of the animation by creating a 10 frame sequence based on this single image.

To have DPaint automatically place the spinning globe on screen, position the animation globe where you want and right click the mouse button, then immediately click on undo.

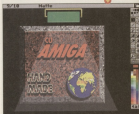
Call up the animation/movie requester and clear all values - we want the globe to stay exactly where we placed it. Ensure the

frame count says 10, then click on draw.

The program cleverly paints down each animation call of the spinning globe in sequence throughout the animation, so that when you play it back it revolves as before, only this time it's part of a much more sophisticated image.

The finishing touch, an illuminated section, is done with a light-beam shaped filled white polygon painted on each frame with transparency set to 60%. The lamp holder I leave to your own design, mine's simply a green rectangular heading room light held by brass brackets.

Peter Lee



6. Drawing a blue light on the sphere... the image has not been painted, the light is added by painting a white beam-shaped polygon onto each frame of the animation, with transparency set to 60%.





## Net God speaks

Amiga 1200s have been on sale for a little while now, however, Amiga Technologies haven't seen fit to supply them with any form of communications software, not even Term. This makes us worry that a new wave of Amiga owners are starting to trickle in who won't see the value of having a modem. What with modems, extra RAM and hard drives to consider, the modem won't seem like an essential purchase at all. So it's up to us to make sure that they know just how groovy that little box of flashing lights really is. We've got to stress how can they can surf the world's Amiga resources at will on the Internet and pick up lots of invaluable software for next to nothing. They need a friendly helping hand into the wired world. So when you meet a new Amiga owner, let your first statement be: "Have you got a modem yet?" Let's hope AT address this major shortcoming in the A1200 pack soon. Then again, you never know, maybe someone could program their own comms software from this month's Amiga E cover disk and that would solve all our worries.

# Surf's up!

Our undercover reporter on the 'Net is here with tales of a new comms book, Term updates, BeBox's latest developments and ARexx stirrings in the Spot FidoNet.

## News

### Connecting your Amiga book

'Connect your Amiga' is an excellent comms book written by Dale Larson of former Commodore fame and the author of the Envy networking software. Having been edited for UK relevant material, it's been released in the UK by Fourth Level Development for £11.99. Subjects covered included local networking to full Internet software usage and techniques. Contact Fourth Level on 0117 804 0445 for more information.

### CU Amiga file archive

After being bombarded by requests for more information from Amiga 805 SysOps around the UK, we've decided to implement two PD file-sites! At the PD, except Licensees, viewed in CU Amiga Magazine will be 'hatched' into two FidoNet domain file-sites called 'CU-PD\_UTLS' and 'CU-PD\_SCONE'. These will then be posted to London BBSes who are free to pass them on further afield. Most of the PD material can then be obtained from special file areas set-up on participating BBSes. We'll list them each month if we can. Watch out for the FidoNet AMIGA, MMS echo for details of the current BBSes involved.

### BeBox innovation

Anyone browsing the comp.os.amiga.misc newsgroup or hanging on to the #Amiga IRC channel, couldn't fail to notice talk of a new computer platform. The strangely named BeBox machine sports an advanced hardware specification at a low price which prompted many Amiga users to ask why Amiga Technologies couldn't emulate the formula. This speculation was later followed by rumors that Amiga Technologies

were 'hacking' to the inc. about running AmigaOS on the hardware. Since the Amiga has the software base but the BeBox has the hardware we've been screaming for it has inspired great hope that something will become of it. Interestingly, the boss of Be Inc. was heard to shout in a PowerPC newsgroup that the BeBox wasn't a Macintosh clone but rather an Amiga 95.

### Amnet flooded with 'Term' scripts

One long time FidoNetter and Backyard BBS Sysop, Anthony Arica, has finally got himself Internet access. Discovering the #Amiga channel 'list', Mame, he's seen fit to upload his entire collection of ARexx scripts for the 'Spot' FidoNet technology mail browser via Mame's helpful Amnet upload function. These scripts range in quality from

excellent to tedious and can all be found in the Amnet comms/fido directory.

### Term 4.5 released

The famous long standing and much updated PD terminal software Term, has been updated again by the German author, Olaf Barthel. Featuring copies of bug-fixes and minor enhancements, some other areas have had a serious reworking such as the phone-book section of the package. Term 4.5 comes in several archives that reside in the contributors directory of the Amnet including one optimised for the 68000 CPU. Term is a large package and really needs an A200 minimum to run happily. All the file names start simply with 'term'. Internet users can also obtain Term 4.5 from the Gerstale BBS on CHN 7719120 and Backyard on CHN 4242965. ■

## Mailing list mix-up

In the October Surf's Up page, we printed details of the CU Amiga mailing lists. Response has been positive with many readers subscribing. However, we printed the wrong name for one of the lists ('co-list' instead of 'co-amiga'). So here are the online details again. To join the CU Amiga Magazine mailing lists, send an E-mail to [email@lisa-amiga.demon.co.uk](mailto:email@lisa-amiga.demon.co.uk).

In the body of the message include either of the following lines:

**WABSCHEM co-amiga <E-Mail address>** or  
**WABSCHEM co-amiga <E-Mail address>**

Note that the 'c' and the 's' are not to be typed in. They are included to indicate that the E-Mail address is optional. If it is not included, the address of your current mail will be used to subscribe to the list. Again the first list, co-amiga, is a low noise one-way list which has such things as our new contents page periodically posted to it. The second list is a discussion list where readers can get involved directly and talk to the staff at CU Amiga Magazine. E-mails to go onto the 'co-amiga' list should be sent to [co-list@lisa-amiga.demon.co.uk](mailto:co-list@lisa-amiga.demon.co.uk).



# Wired World

**PART  
5**

**There's lots of interesting oddities to be had from the Internet. Here's a selection to choose from ...**

## Alynx - text only web browser

In Wired World part 4, we looked at setting up the Mosaic graphical World Wide Web browser. One of the criticisms laid at the feet of the WWW is that downloading all the pictures can be a slow process. There is, however, a little known browser that solves this problem by ignoring the graphics altogether. Known as Alynx, the Amiga version is a Lite path and runs entirely from the GUI with a text only output.

To get a copy of Alynx, drop into your local Amnet FTP mirror site file, `sunsite.doc.ic.ac.uk` for example and once in the Amnet route directory FTP `/connect` Alynx.lha. Unfortunately there isn't a custom installer but thankfully it's

relatively easy to set up and connect with comprehensive documentation. Extract the archive to somewhere on your hard drive. A small DOS script to launch Alynx is now needed. Type the following into your text editor:

```
SAVED CONNECTING POWER
SAVED NOW CONNECTING TO
CHECK TO Alynx! RUN >HILL
Alynx
```

The first line tells Alynx that we want it to turn on its own screen rather than in a shell window. The second will need the file replaced by your user name. Eg: if you are fred@jollys.demon.co.uk then put UGH.fred. The third line will need (Path the Alynx) replaced with the full path of where you extracted Alynx to on your hard drive. Eg:



▲ Downloading text pages together with pages like this can be an unnecessary hassle if all you want is some page information

`Hill@CommaAlynx`. Save this script as `SAVED-Path-Alynx` and then enter `Execute SAVED-Path-Alynx` in the Alynx file menu.

The next order of business is the Alynx.cfg file. To set it up correctly, load Alynx.cfg into your text editor and read through the comprehensive commenting present in the file. Two lines need to be present formatting the examples:

```
SAVEDCONNECT: /dev/ttyL1 -C
USER > CONNECTOR: /dev/
```

Again, (Path to Alynx) needs to be the full path to the location of Alynx in your hard drive.

Note that there is no space between the "/" and the path. Also "/" or " " must be present as the last

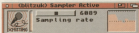
character. Eg: `CONNECTOR: /dev/ttyL1 -C`

With that, you should just need to link up and enter Alynx in the shell. Alynx should enter on its own screen with green text on a black background. Type "Q" for go to page and enter a WWW.

address. Alynx should collapse. If not, read the AmigaGuide documentation that comes with the package. Alynx handles the more complex functions such as Forms with relative ease and isn't prone to crashing in the same way as Mosaic. Its non-volatility on MUI is also regarded as a positive point by many users. Lastly, the inline data such as pictures and sound can be sent to applications to view and listen to the data. Given a bit of work with the Alynx.cfg file,



▲ For as pretty as Mosaic, Alynx is, however, very fast indeed and may be just the site for browsing the WWW with missing the phone bill time for a moment.



▲ MidiBank's dynamic MIDI channel display also supports ability to function as an external sequencer.







# Sound Lab

## Audio Master 1V

PART

1

**AudioMaster IV's excellent effects and editing features come under the spotlight this month, along with a look at the sequencer mode.**

**L**ast month we looked at the basic operating functions of AudioMaster IV, our cover disk from the November issue. However, over the coming tutorials we'll be concentrating its more specialist editing options that make it stand out from the crowd. This month we'll concentrate on the effects menu. To begin, load AudioMaster and then load a sample. If you bought the CD edition of CD change last month you'll find plenty to choose from in the samples directory.

Many of the following effects will be most evident when used on longer samples that contain a range of different frequencies, such as drum and rhythm loops.

### Tune waveform

Tune Waveform shows the default playback speed and pitch of the sample. When you save the sound as an MP3 or WAV sample the Amiga's standard sample format, these settings are embedded into the file. The pitch can be defined in one of three ways: sample rate, period or note. The resample button



compresses the sample so that it plays twice as fast and uses half the original amount of memory.

### Duration/pitch

This is the timeshift and pitch shift section which lets you change the pitch without altering the length of the sample or the length without the pitch. This is thanks to some clever maths that inserts or removes lots of tiny portions of the sample. It's especially useful if you have a melodic sample loop that needs to fit into a song that's tuned differently to the loop. You could first get the timing to match with the previous menu option and then alter its length by entering its duration in seconds right down to seven



decimal places. Now that's precise! Taken to extremes it can also be used for special effects. Sample rate, pitch and duration can all be set independently, either from the sliders or the value boxes. Click the resample data button to go ahead with the change.

### Change volume

You can change the volume of either the whole sample or just a part of it. Select the required area as a range, and then adjust the start volume and end volume sliders. For a marked volume change across the whole range, make sure that both sliders are set



identically. For a smooth fade set them at different levels. Click the ramp it button when you're happy with the settings.

### Backwards

Either the range of the copy buffer can be reversed with the backwards option. Select either range or copy buffer to decide which.

### Echo

Echoes can be added to the ranged area with this option. There are three parameters that can be set: echo rate, decay rate and number of echoes. Echo rate governs the time delay between each echo - smaller values lead to more closely packed echoes. Decay rate refers to the speed at which the



echoes fade away, with lower values leading to longer decay times. Number of echoes lets you specify a maximum number of echoes. This is initially set to an infinite amount, although this is limited by the amount of 'workspace' you currently have.

### Mix/flange

The contents of the copy buffer can be mixed with the currently edited sample using this option. This is useful for sampling instrument samples to make richer sounds. For example, a piano note could be mixed with a synthesiser sound and saved out as a



single instrument. Rhythm loops can also be combined to save memory and to free up one of the audio channels. By using the alter pitch function to get two rhythm loops to exactly the same length and then combine the using the mix option.

The second part of this feature is the flange setting. This offsets the copy buffer from the sample being edited by the amount controlled by the slider. In other words, one sample is stretched or compressed as it is moved. Either the copy buffer and the sample in the edit window are identical, adjusting the flange setting and mixing the two leads to a phasing effect that's most notable on sounds with a lot of high frequency content. If you want the phase to move 'up' rather



than "down", first reverse the sample, copy it, range it and then reverse it back again.

## Digital filter

One of AudioMaster's most powerful features is its filtering section. It looks a bit confusing at first, but it's quite simple to use once you understand the principles behind it. The top 2 sliders are used to set a range of frequencies, specified in kHz. Logically enough the upper frequency cannot be set to a lower value than the lower frequency.

Now onto those buttons.

Boost will boost the frequencies between the sliders. Cut will remove the frequencies between the sliders. Pass will allow only the frequencies between the sliders to pass through the filter, removing everything above and below the selected frequency range. The Filter Effect slider controls the amount of cut or boost applied by the filter (it for example you wanted to remove all of the bass frequencies from a sample, you would set the Lower frequency to one and the upper frequency to 100 or thereabouts and then click on Cut. Experiment with some samples that contain a range of frequencies and you'll soon get the hang of it. Once you do you'll find it an incredibly useful tool for cleaning up and enhancing your samples.

## Realtime effects

AudioMaster can also be used as a realtime effects processor. You'll need a sampler cartridge to use these features,

as they work by storing the sound coming in through the cartridge then playing the results out through the audio ports. Try plugging in a microphone into the microphone socket of a T-6 and then into your sampler if necessary)



## Loop Sequencer

The best way to make music with your AudioMaster cartridges is to load them into tracker or dedicated sequencing software, but AudioMaster also comes with its own sequencing functions which can be handy at times.

The sequencer controls are arranged in a cluster on the left of the control panel. You can also create sequences using the SEQ menu options. The SEQ button switches sequence mode on and off. Sequences are created by setting up a series of loops within a single sample. These loops are then played back to form a longer piece of music. There's an example sequence file on the AudioMaster disk called

RockTobacco, which you'll find in the Examples folder. This one plays back at 100%, so the sound quality isn't that hot, but it's a good demonstration of the sequence functions.

To make your own, load in a fairly long sample (a rhythm loop or something similar will do) and click on the SEQ button. Move the Gap markers to dragging the handles with the mouse. Drag them to form a loop somewhere between the peaks in the sample wave. Click on the Add button to add another loop. If you want, this section to be played again straight away, leave the loop markers where they are and click the Add button once more. Continue this process until you want to add a different loop. You'll notice the number (changing in the box on the far left. This is the number of the current loop, and can be changed by clicking the Up and On buttons. To hear the sequence at any time click the Sequence button.

Sections of the sequence can be deleted with the DEL button. There's also a feature that automatically fades out the last part of the sequence. Select Set Fade Start from the Gap menu and enter the number of the sequence position from which you want the fade out to start. When you play the sequence you'll notice the volume fades smoothly from this section to the end. The repeat button makes the sequence loop over until you press stop. Sequences can be saved out using the Save... > Waveform option from the Project menu. If you are still in sequence mode, the sample and sequence data will be saved out as one file.



or just use a normal cassette or CD sound source.

The echo is self explanatory. There are two sliders that can be used to change the effect. Echo rate sets the time delay between each echo, while Decay rate defines



the speed at which the echoes fade away. The two buttons lead to slightly different results. Echo will generate an almost endless string of echoes with the right settings, while Delay simply adds a single echo.

Flange puts a phasing effect on the incoming sound. Try playing percussion or drum tracks through it for interesting results. By altering the length and depth settings to maximum you can create a long smooth phase slide.

Pitch bend's pitchbend, which changes the pitch up or down according to the slider setting. Set this to minimum for step-ladder-like sounds, or maximum for squiggly results. ■

Nary Morgan

## Did You Miss Out?

AudioMaster II was given away free with the November 1995 issue of CU Amiga Magazine. If you missed out you may still be able to get hold of it from our back issue department. Call them on 01850 450 550 now, as stocks are limited.



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**PC REVIEW**





# Frequently asked questions

**Lights, camera, action! Everything you needed to know about animation on the Amiga is here, frame by frame.**

**■ Q. How do I prevent running out of memory when creating animations on my Amiga with Deluxe Paint?**

**■ A.** First of all, keep the total number of colours in your animation to a minimum. If you can, keep to 16 or less. If you are dealing with images with lots of colours, is any traced or digitised, use HMM mode as digitising traced special pixel patterns to give the illusion of more colour uses up memory.

Secondly, use the lowest resolution screen mode you can get away with. While HMM mode is as tempting from good low resolution RAM, appears. If you are going to record your animation, use a video overseas mode. Interlaced modes record well to tape but double the amount of memory actually required.

Secondly, buy more memory. If you have an A1200, you should fit your motherboard with as much RAM as possible, a total of 640k is a minimum useful amount. Also, keep movement to a minimum. Remember that it is the difference between successive frames that will be stored; two identical frames one after the other will only need enough memory for the first frame, the second will be free.

Finally, if using a paint program for creating your animation, remember that the Amiga will also need to keep the paint program itself in memory.

**■ Q. Can I render animations with Imagine or Real3D?**

**■ A.** Yes, both these programs and all other 3D rendering

packages allow animations to be made automatically. Once you build your objects you can control their movements in the 3D space and decide how an imaginary camera can track their movements.

The rendering software will then either generate a series of still frames or create a single Anim file. Some software, like Real3D v2, will allow objects to collide and can alter movements according to the laws of physics.

**■ Q. How can I make an animation of digitised images?**

**■ A.** Animations of 'real' video (people or television for example) is difficult, as a single frame of colour TV can consume about 140k of memory. Only storing the differences between successive frames doesn't work very well with video either but that's not to say it isn't possible.

You will need extra hardware and the cheapest is probably the VideoMaster from HiSoft, but costs £16,000, once £50,000 which will grab low resolution monochrome video and sound simultaneously. The quality makes it worthy for fun but it's very impressive.

The ProScan digitiser can grab frames quite quickly (especially the PQMCA version) and like the VL68 HIC system it will take several runs through a video tape to make sure all pictures have been digitised.

The best solution is undoubtedly the VL68 Motion card, which captures video and compresses it with JPEG compression in real time to store it on disk and play it back. This

card costs £1,500 and requires a very fast hard drive.

The MPEG format is designed for video playback and Amiga systems do exist. However, they are rare and encoding is expensive and slow.

**■ Q. I want to play back and record a long animation onto video tape, how do I do it?**

**■ A.** Physically connecting the Amiga to the video recorder depends on your hardware and the quality you require. An A1200 has a colour composite output which can be connected to the AUL video in connector on a video recorder, or via a suitable lead, through the Scan Input socket. Remember to switch your video to AUL IN rather than a TV output.

Some graphics cards (such as the Proscan fitted with Ribo card or the Power Computing Fiber Power) will also provide a high quality video signal.

Other models of Amiga may require an external modulator (the A500 or A2000 for example) or a genlock (which although primarily designed to mix Amiga graphics and live video also provides a good video signal from the standard RGB monitor port).

Recording lengthy animations can be done in three ways:

1. Buy about 200k of RAM and store the entire animation in memory (not always possible, unfortunately given the price of memory).

2. Play back the animation in sections, passing the video recorder between each. This technique will take practice and good timing.

3. Store the animation on hard drive and use a program like Playtest to play it back in one go. For this to work, you may need to take all the individual frames which make up your animation and save them into one big Anim file. The best software for this is the Art Department Professional,

which uses a utility called PREO to combine and edit all the frames. In this way you can easily create an animation many megabytes in size, even if you only have a little RAM.

Playtest comes with a utility called Makeanim? which converts a standard Anim file (such as that created with DeluxePaint) into a new Anim3 format. Personal Power also supports Anim3. Files stored in Anim3 mode play back a lot more smoothly than disk.

**■ Q. I have lots of different animations and titles which I would like to combine with Amiga sound effects and music files. What software do I need?**

**■ A.** You can make simple animations and sound productions using little more than Affix (see last month's Amiga Magazine) for details but dedicated software is required for the desired effects.

Software like AffixActor is designed to playback animations and synchronous sound effects, but you can also achieve a lot with Multimedia Software such as CamEd or Scale. These systems require a little more work, but will definitely provide the best results.

**■ Q. Will an FPU make any difference to animation speeds?**

**■ A.** No, a Floating Point Unit will make no difference to animation playback rates or even to a paint program like Deluxe Paint or Personal Power. An FPU will, however, speed up any image rendering or image processing jobs by a considerable amount and unless you know for certain you won't need these applications you should buy an FPU at the same time you get an accelerator card. ■

John Kennedy



# Masterclass

**A new datatype pops up on a cover disk or BBS every few weeks. What the heck they are and what could mean for you? We reveal all.**

**E**ver wondered what happens when an Amiga application doesn't know what to do? It doesn't just give up: it asks a datatype for help. Datatypes were one of the few obvious improvements which came along with Workbench 3: you won't be able to use them on Workbench 2.04 or older systems and therefore you'll need to buy a Workbench 3.1 upgrade kit (by Dimension 11008 261477) or from Power Computers 61380 489760 which consists of new Kickstart ROMs and system software.

## What are they?

The idea behind datatypes is to direct application programs from data formats. Rather than have an application, a paint program for example, worry about all the

different file formats, let it know about datatypes instead. The specific datatype knows how to decode an image in RLE, GIF or JPEG format - the application program only needs to know that it can ask the datatype to do the conversion on its behalf.

This technique works very well, especially as when a new file format comes along it is only a matter of writing a new datatype. If we happened to invented a new file format with built-in compression called PopCouch, then all we need to do is create a PopCouch datatype for all the existing programs which support datatypes so it can read the files.

Naturally what happens is that the application program will find out all by its use the loading

routines which have been programmed into it: these will usually be faster and more flexible. If the application can't load the file in this way, it asks the system if a datatype is available. If so, the datatype loads the file and passes the data



▲ Figure 1: If images load but not...



▲ Figure 2: If image load because it cannot read RLE files, then it will eventually asking a RLE datatype

## Here's what some readers did with their WB



Wynne has also used a single image for the background this time in more subtle colours and pretty obviously he is a fan of *Scrabble*. Notice also the various utilities scattered around the display: a clock, calculator, keyboard program and some sensible virus checker.

If you want the world to see what your Workbench looks like, send a grab on disk to *Workbench* pages of creativity via John Kennedy, C/J Amiga Magazine, Priory Court, 30-32 Ramsgate Lane, London EC1R 3AL. Remember to include details of any special utilities you have running, as well as how many colours your display takes up.

Since the last class, several generous readers have sent their Workbench desktop into the office. Examining other people's screen shots is a great way to get ideas to smother up your own system: remember even with no additional software you can still use the Preferences menu to give your system a totally unique Workbench display.

The images this month are provided by Mike Flynn from Workbench (see left) and Wayne Odham (see bottom right) from the Tony Hancock Association (sorry details of which can be obtained from 425 Pembury Road, Forest Gate, London E7 6DF).

Mike's display uses a coloured background picture (rather than a tiled pattern) in bold colours. He has used a very 1980s OCR-style font for the icon names and a Menu utility file as a 3D 'apple'-thing.



to the application programs.

You can see this happening below in a grab of the *MovieIt* image viewing program in action. I have used the excellent *Snapshot* utility to see what is going on behind the scenes.

In figure 1 you can see the *VT* program load, look for some defaults (unsuccessfully) and then load the image file spheres.gif. The *VT* program already 'knows' how to load GIF files and doesn't need to use a datatype.

In figure 2, the image is stored in BMP format - the format<sup>1</sup> format which Windows uses. *MovieIt* is pretty sloppy in that it doesn't compress data, but if you deal with PCs you may come across it. *VT* loads the file a few times but clearly doesn't have a clue how to deal with a BMP file, so it asks the BMP datatype. The datatype opens and then it loads the BMP file on *VT*'s behalf.

Another program which makes extensive use of datatypes is *MultiView*: the viewing program which comes as standard with the system standard. *MultiView* doesn't know anything but





... ..

stereotypes, which makes it extremely flexible. Not only will *Illustrator* keep and display any image you have a stereotype for, but it will also load and play animations, sounds, text files and even *Acrobat* documents. *Illustrator* is a well kept secret and it pays to experiment with it, as it is a very powerful tool.

Besides simple viewing programs like *Viewstat*, some art programs such as *Personal Paint* also support databases. Hopefully, with the Amiga's future looking bright thanks to Europe's marketing and pricing policies, more applications will be updated to make use of databases and other OS-specific features. If you feel like speculation that it is rather

disagrees not to work on OS/2 or 1.3 then I should you won't get much sympathy. If you had a PC, you could be falling over yourself to cough up the money for Windows 95, so do yourself a favour and get OS/2 as soon as you can.

## Installing data types

[illegible]

Amalgams, cements and some image formats are provided in order to give additional information to, along with

Adding some new datatypes is therefore a good idea and only needs a few seconds' work. There is no configuration to do: it's only a matter of declaring some files.

Each database consists of two parts. The first will have a name ending in *.database*, for example, *JPEG.database*. This file must be copied into the *Ops database* directory.

The personal file will be the one with an icon and it will be simply called JPEX or QP or BAP or whatever. This file must be copied to the drive whenever you connect.



1. These Monetary News items are all the Monetary, which I have in my system, my forecasts are based on the 2000 information which I will include later from the 1999-2000 period. I have not included the 1999-2000 period.

discrepancies which have been installed on my system. One of my favourites is the CD-R, data-rite, which I use to play only pairs of videos from old CD-R CD-ROMs. My paper was in the forum which says should all have heard

1998年 12月 10日  
 星期一



■ An owner from the former type of Speedlight (2000 for the 1974 model and 1975 for the 1976 model).

Where can I get datatypes?

Where do all the datasets come from? Most of them are either by license or by agreement. Some are made public domain. Some are made public domain because they need them for a particular project, and then decide to make them public domain.

The best place to find them is on the *Arminet*, which is a CD-ROM on the Internet site. Look in the *Arminet/oldtypes* directory for the latest list. Here is the current contents of the *Arminet* section at the time of writing:

[illegible]



## Logos, meanings and mysteries:



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Got a problem? Our Amiga experts are on hand to resolve your Amiga queries.

Address your technical queries to Q+A, CU Amiga Magazine, 30-32 Farringdon Lane, London, EC1R 3AU. Alternatively email us at [Q+A@cuamiga.demon.co.uk](mailto:Q+A@cuamiga.demon.co.uk).



Technical editor Tony Morgan likes a hardware problem to chew on while he's creating choons.



Mart also likes to get stuck into your Amiga-related problems, when we can finally toss him away from the 'not that its.

## Thrash about



When I get a girl's error disk to go down, waiting and I meet the computer (just look) the last drive starts

going absolutely nuts trying to boot up. While this is going on messages appear saying disk not validated and then it all flounders a little at the way through to Workbench and still continues to access, even when I cold boot after switching off for 30 seconds the hard drive still constantly accesses. Sometimes the accessing stops, if its own accord, and other times, I need to prompt some disk access from the Workbench whilst this stage is.

See Perry via E-Mail  
[shv1@clinet.perry.co.uk](mailto:shv1@clinet.perry.co.uk)

There's nothing wrong with your drive. This process is quite normal. If your machine won't writing to the hard drive and an error program record your machine in crash, the disk structure is corrupted. The Amiga's filing system knows about this and will scan through the entire drive and should correct the corrupt structure. This is the constant disk activity you witnessed. Because your Amiga is malfunctioning, it will still try to check which causes the drive to thrash rather noisily.

The solution is to reboot with both mouse buttons held down. Follow 'Start with no startup sequence' in the early startup sequence screen. Then simply wait for the drive activity to finish (don't run any programs) and then reboot again. Fourth Level Development's tech 0117 981 4000's Jan-Philips file system doesn't suffer from this problem, so it may be a good idea to get hold of it if this is happening regularly. AFS will also speed up your drives.

## Music bugs?



I've just turned 18 and my friends bought me the September issue of CU Amiga as a birthday present.

As I am a computer musician, I was delighted to notice that disk 115 included with the issue contained OctaMED 5.0f. I started to make a song with it. However, after using it for some hours I found many major bugs in it. The speed commands (flood aren't working and the speed slider doesn't have any effect (well, sometimes they do). Also the fxx command (sample offset) makes the track sound slower (it's like the fxx command). The program has also crashed three times for no reason. And when I enter the fxx mode, samples won't play any more, they just say fxx, fxx, fxx (fxx, fxx, fxx).

Also the guide which came on the disk doesn't work. Some sections of it work perfectly, but most of them don't. The article in the magazine didn't tell much either. While can I get full documents from? And... where could I get a working copy of OctaMED 5.0f from? I am disappointed. The program has great potential, is the CU Amiga version the only one with those serious bugs? I really wish you were able to help me.

Mikko Tuomela via E-Mail  
[mtu@net.fi](mailto:mtu@net.fi)

It's important to remember that all of OctaMED's commands are made up of two hexadecimal digits, although the first digit of most of them is zero. The sample offset command is ff rather than 0, 0 as its one will change the tempo in OctaMED but is used to change the sample offset in ProTracker. The ff command is used to change the tempo in

OctaMED and also to perform a five-minutes pause, such as triggering notes a number of times in a single line or delaying notes slightly. It's also worth remembering that if you load a SoundDirector module into OctaMED, some of OctaMED's commands are temporarily changed for compatibility with SoundDirector commands.

As for the second up it doesn't sound, we couldn't get our copy to do it, so we're changed on that one. Our guess is that you are using some of the options in the wrong order.

OctaMED 4 is highly recommended, as it comes with a printed manual and loads of new features. It's available for OS to the UK, £19.95 in the rest of the UK, and £18 in the rest of the world. Payment from overseas should be in the form of a banker's draft or Eurocheque, payable to 'RBF Software'.

Send your order to RBF Software, 700 Dale Valley Road, Southampton, SO1 9PT.

If you're still lost for a solution, you can email your problem to RBF software at [rbf@pippin.computel.co.uk](mailto:rbf@pippin.computel.co.uk).

## Bigger A500 HD



I have an ancient Amiga set-up that is great for my needs but needs a slight tuning for perfection. Any

help with the following questions would be most useful:

1. I have an A500+ with an A500 20MB hard drive. I desperately need a larger hard drive. Is the best solution an external SCSI drive linked to the A500+ or to dump the 20MB XT drive and fit a larger drive in the A500 case?
2. The existing drive in the A500 is very slow (20000). Is this the drive itself or the controller? If I add a 100-MHz drive, will I get 240MB transfer and 60ms seek?



1. I find ImageFX (all your cover disk) a fantastic time saver when compiling Imagine renderers into animations using the RSP patches. Unfortunately you have not done a tutorial on this powerful tool. Is there any way to find out the commands?
2. If you send me the ImageFX manual, I will write a tutorial for publication in your excellent magazine. How about it?
3. I am about to upgrade my processor to the MC88010. Will I have problems with software compatibility? Surely if programs work on the 68020 based Amigas they will work on a 68010?
4. I want to split the output from the RSP port between the modulator (for a compatible old style video deck) and an RGB monitor. If I split the output will I introduce noise to the final output? If so what would be the best way to reduce this noise?

Simon Hastings,  
County Durham.

1. Both these options are viable and we know both are have been successfully performed in the past. Which one is best depends on the size of the new drive. If you've bought a cheap 540MB SCSI drive, there would be little point in the expense of buying a externally run to keep the (old) 288MB unit.
2. Slightly more the 41200 SCSI controller isn't very fast either. However with a proper drive mechanism you should get about double that transfer rate. Such rates will be idealised.

A major factor is that the 68000 isn't capable of shifting the data at the highest rate modern drives can handle.

3. (Don't use this man's ImageFX material which this month covers the RSP patch process).
4. Yes Sir.
5. You'll have no problems. Any A1200 compatible material will run on the 68010 so long as it doesn't need the A1200 chips. This will reduce your rendering times slightly, but perhaps one of the 68010 boards for the A1200 might be a worthwhile investment, such as that offered by Power Computing (see their advert in this issue).
6. This isn't really possible on the A1200. The problem is not under but under that video signals can't simply be 'split' into multiple outputs. They need to be 'buffered' with special circuitry, otherwise the brightness will drop as it's shared between both drives. This is not acceptable for driving either an RGB monitor or a video recorder. You could connect

your monitor to the video output of the video recorder for one possible solution. Since you've shown a lens infrared in expanding your A1200 based system, we won't recommend anything that you upgrade to an A1200 considering the cost of your A1200 already but unfortunately the A1200 and A4000 are the only Amigas having both buffered RGB and composite outputs.

## Dodgy supply

I have an A1200 fitted with an 80MB hard drive that keeps resetting itself periodically for no apparent reason. This is very annoying, particularly if it happens to do it whilst writing something into the hard drive. What do you think is wrong with it? Does it sound expensive?

Mr J Williams,  
Northamptonshire.

This could be one of several faults but it's probably down to your power supply. Commodore provided a merely 2A wall unit in the first Amiga built and these couldn't power their way out of a soggy paper bag. The solution is to purchase a more capable unit from one of our advertisers. Data's Goliath II A1200 is a healthy option. You can reach Data on 0782 74997. However, if that isn't (this is the problem, you might like to try and swap your power supply with that of an old A4000 or even remove the hard drive for a time to see if that helps. If it does, the power supply is almost certainly in blame.

## A1200 Tower

- I would like some advice before I splurge out on some serious expansion. I have spent more than a reasonable amount of time checking out the Hastings 26 Tower for the A1200, with a view to purchasing a Picasso II board amongst other bits.
1. If I was to install a second-hand motherboard from a C1202 instead of my 1200B, would I experience anything other than the 800KB chip?
  2. Could I install a SCSI2 hard drive and a (cheap) SCSI accelerator with SCSI controller?
  3. Does PowerStream 3.1 have EFS support? If not it's a minor inconvenience.
  4. ShapeShifter and Emphat, can

they be used together to capitalise on ShapeShifter's ability to speed up the main RAM chip in Emphat's parts for AppleLink?

5. If used with a Picasso II board, would these emulators run the Mac version of Dark Forces?

Unknowns,  
West Sussex

Fitting the Amiga in a Tower case is an excellent idea. A machine of A1200 size could be created at much lower cost. However, Shapies here goes first in their 2A Tower is our finger on a option. There are other developers especially working on their own and we at CTI Amiga have there's a machine market as it's just a question of who comes out with the goods first.

1. Well, you could put a C1202 in a tower but you still wouldn't be able to connect a keyboard or any A1200 expander expansion drives.
2. If you fitted an A1200 motherboard it doesn't have these facilities.
3. If you fitted an A1200 motherboard to a tower, you indeed you could. However, you would have to plug the tower case break-out board into the expander expansion slot to which one your expander is and making it fall to you couldn't use an accelerator.

Hopefully, some enterprising developer will create an A1200 Tower based unit board with a patchwork for acceleration. If you mean with the C1202 motherboard, the answer is definitely no.

3. Yes it does.
4. You could use Emphat to upgrade the 80MB images but the AppleTalk parts won't work with ShapeShifter. Of course if you had an Emphat board you have no need of ShapeShifter at all and can use in this combination which supports AppleTalk, ShapeShifter does, however, support AppleTalk via any 24/24-41 driver which comes with any Ethernet Zero card. Perhaps it'll work via the PLIP parallel 24/24 driver to another Workbench machine on another Amiga. Any readers who have tried this, please let us know.
5. Yes indeed you can. In fact we played this and other doom-like games on our A1200 running ShapeShifter - and they said the Amiga couldn't do such things!

## A right mix up

I use an A1200 with an 80MB HD and 640K of RAM. When I open my October cover disk for desktop publishing I thought 'that is for me'. Desktop Dreams and Dream

on, your cover disks as a rule are very good but I think that this one got away. Having worked out a fix poster for an imaginary disk, I went to print it.

Now correct me if I'm wrong but I thought that publishing programs were for printing. Not so this one. All I got from the printer was a load of garbage. No nice little sketches I had made, nor was there any of the head-lines or text. NOTHING ON THE SCREEN! My God the printers given up on it! I thought. Out with Photoaid. Everything worked. A DCL Conclusion, the fault must be with Desktop Dreams.

Unknowns.

Oh dear. We think you might have a slight observational problem. The fact that you asked that the package is called PageStream 3.1 (written in a 97 point font at the top of the cover sheet instructions) indicates you might also have missed the fact that you have to set up your printer in PageStream as indeed you have to do in any other DTP package on the planet. Protect this editor get your printer driver working correctly or to using your Workbench preferences. We recommend that you purchase the manual from Soft-Light or follow the tutorial closely.

## Wrong Images

Using your excellent Image FX cover disk I/O Amiga June 93, when I go to save out a picture, I am offered a number of file formats. If I choose LBM I usually end up with very large files. However, if I select JPEG the files are drastically reduced in size. If JPEG files are so much smaller, surely the other formats are useless? Help!

Wick Speaker  
Oxford.

The reason that the JPEG files are smaller is because the use a 'lossy' compression technique, as called because some of the definition is lost in the process, defined by the quality setting. LBM files include all the original data for each pixel. ■

### NO BASH PLEASE

We regret that we cannot respond to readers' queries by post or over the phone. Please do not include stamped addressed envelopes with your letters, as we simply don't have time to answer the thousands we receive. Responses are only possible through the pages of the magazine.



# Back chat

Welcome to the pages of the magazine that are dedicated solely to your views and thoughts on all things Amiga.

Want to join the party? Write to: Backchat, CU Amiga Magazine, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

## Letter of the month

More power to Gators, they have an impossible job ahead of them. They have to create an Amiga that will keep its head above water against increasingly powerful PCs.

However the average Amiga user is just at the problem. Jon Amiga seems to be convinced that this is possible to create an Amiga that blows away PCs, MACs and consoles, has endless memory and hard drive space, for about \$500. Please try to understand that other technology costs and having a top of the line computer means buying down some others.

When the Amiga 3200 was born, it was miles ahead of the competition, with its graphics, sound and price. Your A200 has been around for a decade now and it might be time to upgrade. Don't get me wrong, my bought up A2000 will still do things my Pentium won't and I'll take that much: our Windows anyway but in many respects PCs have pulled over the Amiga. What would you offer with a cost less game on an Amiga, where the standard is still 12MB of memory and no hard drive, or a PC, where the standard is at least 48MB with 68MB of memory and at least a 300MB HD? I would be more than happy to spend \$1500-2000+ on a good powered up Amiga but the existing market won't support it. If you love the Amiga, spend some money for heaven's sake.

The real saying no should go overboard, but we're going to have to try harder if we expect the Amiga to, once again, surpass the clones. Either this, or it is time for the Amiga to redefine itself as a limited alternative to power computing - ie, the 'cheap as good' computer.

You can't expect the current crowd of A500, A502 and A200s to push those jaws far enough. I really don't like to sound like this, but I love the Amiga but it is quickly losing ground and our Amigans are in Maine. Stop treating the Amiga like a toy and then whining when it doesn't put the other computers to shame.

Norman MacDonald, Spokane, Washington USA

## Not just a games machine

I feel that people are unduly distressed about the contents and price of the new A2000 pack. Those who only want an Amiga to play games on are probably right in saying it is overpriced, but they must understand that the Amiga is a computer, not just a games machine.

With the inclusion of programs such as *Wordworth* and *Photopaint*, the A2000 price tag is justified when you consider that you're getting hundreds of pounds worth of software as well as a top machine.

However, the general rule seems to be to compare the price of the Amiga with the price of the Saturn or the PlayStation. This is completely absurd to compare games consoles with computers. I mean, when will you ever see *Lightforce* or *Image FX* or the many other excellent programs on any of these 'next generation consoles'?

Another bone of contention is the lack of games such as *Radix River* on the Amiga but we already have *Phil Proctor* and *Winter Ending*. When *Doom* comes out, nobody thought it could be done on the Amiga but look at *Panic*, *Alien Breed* and *Gloom*. Someone like Team 17 will bring out games like *Radix River* and *Winter Fighting* eventually. So what are you all moaning about?

Name and address withheld

## Beginner's dilemma

In order to survive, the new Amiga A2000 must have top of the range software like *Book and Wordworth* to help sell it. But what about new users? I remember when I first got my Amiga I didn't have a clue how to use it and, in all fairness, not even your magazine could help me. It's all very well having modern, complicated software but for the Amiga to succeed they need to put in some simple to use stuff too, to make new and unfamiliar users feel comfortable. No computer is very easy to use from scratch but the Amiga has this potential. Who really wants to wade through these manuals?

Samon Mac Anna, Belfast.

There is a certain element of truth in what you say, but there is also a limited amount that Amiga Technology can supply with the Amiga. Simple software would quickly become useless because, as you said, the Amiga is easier to use than most and

you will soon get up to speed with something like *Wordworth* or *Photopaint*. As mentioned in the seven pages of this magazine we've included a starter guide to the Amiga, which should help new users, but the best way to learn a system is to use it regularly and, being though it may seem, read the manuals.

## Poor man's Doom

Thankfully, after the previous months of uncertainty the Amiga is still here ready and waiting to receive the supposed influx of 'great' titles, starting up to get a look in.

These titles include *Gloom*, *Panic* and other *Breed* 3D and have been heralded as ground breaking *Doom* killers. Well ground breaking they might be, *Doom* means they certainly are not. I now a good deal about *Doom* already, and the fact games should have more life, instead they have *Doom* already, until they are eliminated in a blaze of extinction. In an unimpressive two frame animation, as is the case with *Panic*.

*Alien Breed* 3D, however, is a lot better than *Panic*, though it has well animated and varying enemies, unfortunately the graphics are too blurry and the gameplay view is confined to that small window. I haven't played *Gloom* so I can't comment on that although it was reported to have no save option, forcing the player to finish the game in one session or start from scratch. This is ridiculous. I've played the *Doom* series and *Dark Forces* on the PC. They are something to behold and sadly the Amiga's patch barely scratch the surface.

It's not just *Doom* clones that have wound me up. I've been waiting for *FF* for two years now and have just read that *Amber* it is to be put on hold. It's suckering. Amiga owners have to put up with a lot of rubbish from these people and it's becoming very boring. Back to *Amber*, the 3D sequel to *Planetlaid* is now available for the PC and it looks stunning. Will it be available for the Amiga? No chance. Why? I demand software in there then people will play for it, even upgrade their machine in order to play it. I whole heartedly agree with that *Amber* who wrote an article (exclusive to *Amiga*) *Cu Amiga* Oct 88 pg 100 stating people will upgrade if they're given a incentive and his clue. It doesn't cost that much to improve an A1200 considerably, if I can afford to do it anyone can.

I hope that Amiga technologies get their act together and really try to make the Amiga work, reducing the faith of the consumer and pushing on in a machine which is being left at the back of the class due to ignorance and laziness.

The quality of software has to improve and potential buyers have to know of the Amiga's existence through advertising and shop displays.







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# Windows 95

## Good for the Amiga?

**Andy Leaning,**  
ex-technical  
editor of CU  
Amiga  
Magazine and  
current  
technical  
editor of our  
sister PC  
magazine PC  
Review argues  
that Windows  
'95 is good for  
the Amiga.

**T**here can be few people in the world who missed the launch of the latest operating system for PCs, Windows '95. Microsoft are spending a reported \$700 million on the launch and subsequent marketing. Every major country was subjected to a barrage of marketing stunts such as painting fields around airports with the Windows '95 logo.

What has this got to do with you? Surely such an onslaught will attract more users to the PC market, away from Amiga technology? Not exactly. Yes, the mass advertising behind Windows '95 will help the PC cause but I also believe it will considerably help the Amiga.

### A better option

There are two main reasons why I think Windows will help the Amiga. First, Windows '95 will initially drive up prices of hard drives and RAM, making the Amiga look an even more attractive cost option. Here? As Windows needs more RAM, 64MB at least, and available drive space millions of Windows '95 users around the world will be complaining.

However, for the immediate future at least, there isn't enough memory and hard drives to meet demand thus forcing the price up. It's expected that single Simons will raise in price by almost 30% in the next six months, making new PCs and PC upgrades more expensive.

The Amiga, however, with its low overheads, doesn't need huge hard drives, and memory will be cheaper by comparison.

People wondering why dealers showrooms looking for PCs will be faced with having to pay more than they expected for a PC, and then see a cheaper Amiga doing pretty similar stuff for much less.

Pretty sensible stuff? There has



Windows '95 can easily affect anything you see that the Amiga has a strong claim to be the best.

the second reason why I suspect Windows '95 will help the Amiga. Take a look at the features list of Windows '95: multitasking, plug 'n' play, easier configuration for games, no more MS-DOS booting, icons that can be dragged around the desktop.

Heard this before? Of course you have, approximately ten years ago to be precise, just about the same time the Amiga was launched; the reason - because these are just some of the technical advantages that the original Amiga had and it had them ten years ago! But in the last ten years the Amiga operating system hasn't stood still. It's undergone numerous improvements. Today's models are fine tuned. That multitasking is highly efficient, the play-and-play equivalent in AmigaDOS has been perfect compared to the first PC version in Windows 95 and works on every Amiga - rather than just the more recent models, games almost always work first time and, well you get the idea.

The end result is that the Amiga operating system and hardware will appear to do a much better job of these 'new' features than the PC and anyone even those without computing experience will recognise this. Now think of all that expensive marketing Microsoft is pumping

out - the result will naturally be their name and their name of major people flooding through the doors of dealers, like Fusion and Miles.

Inevitably such people will have a play with the PC, test dragging icons around, clicking on the infamous Start button and pressing keys. This has repre-

sentative stores I named earlier were chosen because they are two of the larger retailers, with stores in most towns. But these two chains also happen to carry both the Amiga and PC, so as many other dealers, so there's more than a good chance that new users going into such stores will see the Amiga, sitting there doing it's stuff, doing it better, and doing it for hundreds of pounds less.

### Easily awayed

Of course millions of people around the world will still go for the PC, there are plenty of reasons to do so. On the way for one minute suggesting that the Amiga is a better computer, or worse for that matter. However there will be many people who will be awayed, by the cheaper Amiga option.

These new users will want the same kind of software that they could get for the PC and will bring valuable extra spending power to the Amiga market, encouraging software houses like Softdisk, Softgold, Digits etc to spend more on R&D and produce better titles.

Of course this could all be a pipe dream, but I for one don't think so, and neither do several of the larger dealers now stocking the Amiga again after its recent withdrawal. See you in the stores. ■

Andy Leaning

The opinions expressed in this article are not necessarily those held by CU Amiga Magazine. If you hold an opinion on this or any other subject, submit them email us at [Update@AmigaMagazine.com](mailto:Update@AmigaMagazine.com)







# PLAYER Manager 2 EXTRA

THE CHASE FOR GLORY

**ENHANCED  
VERSION  
FOR AMIGA  
1200**

**At last a game that unleashes  
the power of the Amiga 1200!**

**Release date:  
18th October**

*Player Manager 2 Extra - The Chase for Glory* is the Amiga 1200 version of the chart topping *Player Manager 2*.

Graphically enhanced throughout, *Player Manager 2 Extra* boasts a multitude of thrilling new features, exciting options and great sound effects.

*Player Manager 2 Extra* remains the only game that allows you to play for the team you manage giving action on and off the pitch.

## A choice of four playing views



## Winning Features

- ⊕ Tactics Designer with powerful ray trace facility
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- ⊕ Enlarged coaching section
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- ⊕ Comprehensive manager assessment throughout the year.
- ⊕ *Player Manager World* - Up to 8 players compete to see who really has created the ultimate team.

## Stunning New Graphics

